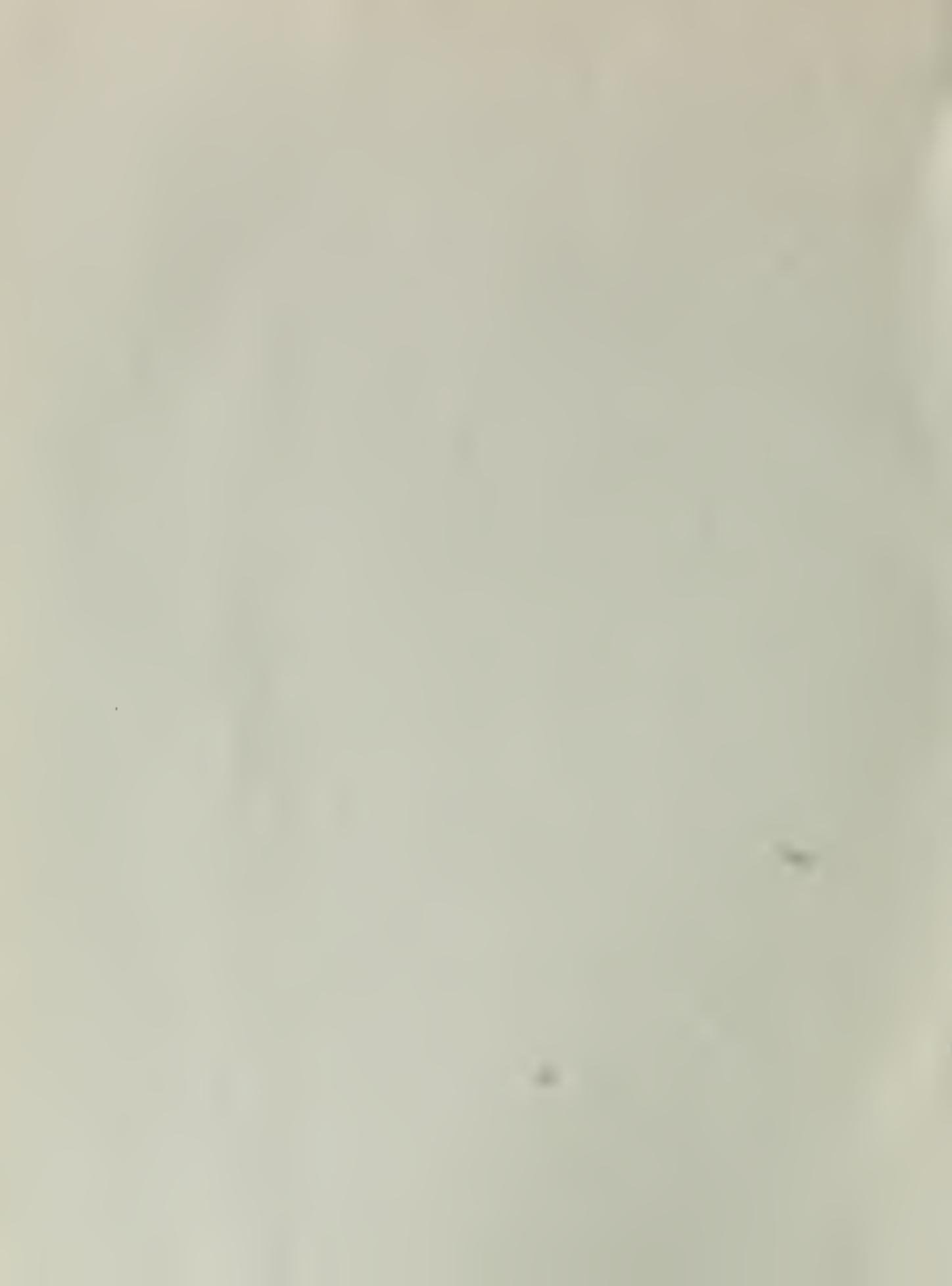




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DIVISION OF WATER RESOURCES
EDWARD HYATT, State Engineer

BULLETIN No. 40-A

SOUTH COASTAL BASIN INVESTIGATION

DETAILED ANALYSES

showing

QUALITY OF IRRIGATION WATERS

(Supplemental to Bulletin No. 40)

1933



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ACKNOWLEDGMENT

Acknowledgment previously made in Bulletin No. 40 of those extending their valuable assistance and cooperation in making it possible to assemble these basic data is reiterated.

Acknowledgment is made to the laboratory which performed the original analyses by reference to a footnote on the last page of each table.

ORGANIZATION

STATE DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

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The South Coastal Basin Investigation,
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South Coastal Basin Investigation

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FOREWORD

This report supplements Bulletin No. 40, "Quality of Irrigation Waters in South Coastal Basin," 1933, a report of cooperative work by the Bureau of Plant Industry, United States Department of Agriculture, and the Division of Water Resources, State Department of Public Works.

Herewith are presented the analytical data which formed the basis upon which Bulletin No. 40 was written. These tables, 26 in number, comprise the data referred to on page 17 of the report as being available in the files of the Division of Water Resources.

INTRODUCTION

The analytical data in the following tables comprise the total of that assembled for and used as a basis for Bulletin No. 40. A small amount of additional data has been assembled by the Division of Water Resources since April, 1933, but is not included in this report. Certain cooperators have continued to make observations of water quality, particularly in Los Angeles and Orange counties, which will in future serve to maintain the continuity of the present available data.

The area which the data cover is referred to as the South Coastal Basin and includes the drainage basins of the Los Angeles, San Gabriel and Santa Ana rivers, and of the creeks that discharge directly into the Pacific Ocean in the vicinity of Santa Monica, as well as those so discharging in the vicinity of Newport Bay.

The locations of all sampling points for which water analysis data are available are shown on a map of the South Coastal Basin to be found in pocket.

The numbers used for the designation of wells, for which water samples have been analyzed, are the same for identical wells as those used in Bulletin No. 39 and supplements thereto, by Division of Water Resources, State Department of Public Works. Sources other than wells have been numbered according to a system described in the same bulletin as "Location Numbers." A descriptive letter preceding the location number has been used to classify the source of the water sample. The letter "S" designates a source where water appears on the surface of the ground as a stream, spring or lake, open or tile drain, or imported water. The letter "R" denotes sewage water, and "W" denotes industrial waste water. The letter following the number differentiates similar sources in the same quadrangle. Solid or open circles are used for wells and triangles for all other sources.

To facilitate tabulating the analytical data, the South Coastal Basin was divided into thirteen areas for the most part delimited by natural boundaries and named arbitrarily so that the name generally describes the geographical location of the area.

METHODS OF ANALYSIS AND INTERPRETATION

Methods of Analysis.

The so-called complete analyses, made in the laboratory of the Division of Water Resources by Mr. J. M. Sanchis, included the following determinations: (1) Specific electrical conductance; (2) Hydrogen ion concentration; (3) Carbonate and bicarbonate; (4) Chloride; (5) Sulphate; (6) Nitrate; (7) Calcium; (8) Magnesium; (9) Sodium. In addition to these the boron was determined in the Rubidoux Laboratory of the Division of Western Irrigation Agriculture by Messrs. L. V. Wilcox and John T. Hatcher. The so-called partial analyses included only (1) Specific electrical conductance; (2) Boron; (3) Carbonate and bicarbonate; (4) Chloride.

(1) Specific electrical conductance was determined by the conventional set-up with a Wheatstone bridge.¹ The results, expressed as reciprocal ohms at 25° centigrade ($K \times 10^5 @ 25^\circ C$), are taken to represent a measurement of the total dissolved electrolytes in the water and are used in lieu of the determination of total dissolved solids.

(2) Hydrogen ion concentration was determined by the use of color indicators and an apparatus in which colored glass discs were used as standards. These colorimetric methods were checked occasionally by the electrometric method.

(3) The carbonate and bicarbonate ions were determined by titration with 0.05 Normal sulphuric acid, using phenolphthalein indicator for the carbonate and methyl orange for bicarbonate.

(4) Chloride was determined by adding potassium chromate indicator to the solution resulting from the carbonate-bicarbonate titration and then titrating with 0.05 Normal silver-nitrate solution.

(5) Sulphate was determined gravimetrically as barium sulphate by the Official Method except that silica was not removed prior to the precipitation of the barium sulphate. The relatively small quantity of silica occurring in these waters does not appear to interfere so long as the volume of the aliquot is not concentrated below 75 to 100 cc.

(6) Nitrate was determined by the use of phenoldisulfonic acid according to the Official Method except that the color comparison was made with an apparatus in which colored glass discs were used as standards, these discs having been calibrated with solutions of known nitrate concentration.

(7) Calcium was determined by precipitation as the oxalate, filtered, redissolved in hot dilute sulphuric acid, and titrated with standard permanganate solution substantially according to the Official Method.

¹ Scofield, C. S. Measuring the Salinity of Irrigation Waters and of Soil Solutions with the Wheatstone Bridge. U. S. Dept. Agri. Circ. 232, July, 1932.

(8) Magnesium was determined by precipitation as magnesium ammonium phosphate, which was ignited and weighed as the pyrophosphate.

(9) Sodium was determined by precipitation as sodium-uranylzinc-acetate, and after washing and drying was weighed as such.

(10) Boron was determined by the electrometric method of titration.¹

Interpretation of Analyses.

Specific Electrical Conductance: This is a measurement of a definite physical property of a water sample, and is regarded by the writer as quite as significant a measure of the total dissolved solids as the results of a gravimetric determination in which salinity is expressed as parts per million. The conductance gives no clue as to the character of the salts in solution, it implies only the aggregate quantity of dissolved electrolytes. In respect to irrigation waters in the South Coastal Basin, if the boron concentration is below the limit of tolerance, and the sodium percentage is less than 60, it is believed that when the conductance is less than 100 the water is safe for general use. When the conductance is more than 100 but less than 300 it may be safe to use the water where drainage conditions are good or where the more tolerant crops are grown, but as the conductance approaches the upper limit of this range consideration should be given to the conditions of use and to the character of the salts involved. Waters having conductances above 300 are generally to be regarded as unsuited to irrigation use, although it should be understood that subsoil waters of that degree of salinity do not imply root zone conditions intolerable to many crop plants. In general terms it may be said that the soil solution or subsoil water is usually 5 to 8 times as concentrated as the irrigation water used.

Boron: The concentration of this constituent is expressed as parts per million of elemental boron in the solution. Experience in the South Coastal Basin has shown that under existing climatic conditions the critical concentration for this constituent in irrigation water lies between 0.5 and 1.0 ppm where the water is to be used for the more sensitive crop plants such as lemons and walnuts.

Per Cent Sodium: This expression as used in respect to the quality of irrigation water takes into account the ratio of the sodium content to the sum of the calcium, magnesium, and sodium, the concentrations of all 3 constituents being expressed in terms of milligram equivalents per liter. In other words the per cent sodium is obtained by dividing the sum of the milligram equivalents of calcium, magnesium, and sodium into the figure for sodium and pointing off 2 places to the left,

$$\left(\frac{\text{Na} \times 100}{\text{Ca} + \text{Mg} + \text{Na}} \right)$$
. The significance of this characteristic of the salt complex in irrigation water lies in the results of reactions of base exchange on the

¹ Wilcox, L. V. Electrometric Titration of Boric Acid. Ind. and Eng. Chem. Analytical Edition, Vol. 4, p. 38, 1932.

physical properties of the soil. If the dissolved salts are preponderantly those of calcium and magnesium; i.e., if the per cent sodium is low, then the reactions of base exchange are in the direction of maintaining good tilth and good permeability in the soil. On the other hand if the percentage of sodium is high the consequent reactions of base exchange in the soil tend in the direction of the replacement of calcium and magnesium by sodium in the exchange complex with the result that the soil becomes deflocculated and impermeable to water. Experience indicates that if the sodium percentage is below 50 there is little danger of impairing seriously the physical condition of the soil. If it is above 60, such danger exists. The critical ratio is believed to lie between 50 and 60.

Carbonate and Bicarbonate: These two constituents are closely related and their relative concentrations may change with changes in the content of carbon dioxide in the water. In the detailed tables on which this report is based the concentrations of both constituents, where both occur, have been reported in terms of bicarbonate. In the discussion of water conditions in the several areas the concentrations of bicarbonate are not mentioned because it is thought that this constituent has less agricultural significance than those that are mentioned. Occasionally waters are found in which the carbonates and bicarbonates comprise almost the whole of the anion complex. If in such waters the percentage of sodium is low the water is probably safe for irrigation use, but if the percentage of sodium is high the water may be alkaline in reaction and will be potentially harmful to the physical condition of the soil. The quantity of bicarbonate in well waters is the least variable of any constituent determined in these analyses.

Chloride: This constituent is the one most easily and most frequently determined in water analysis. It is important because it is one to which many crops are sensitive. As a result of long experience, it has come to be accepted in the South Coastal Basin that in respect to chlorides, irrigation water is safe to use if it contains less than 142 ppm (4 milligram equivalents). As the chloride concentration approaches 355 ppm (10 milligram equivalents) water becomes increasingly unsafe for irrigation use and above that limit its use is hazardous and should be safeguarded by good drainage and copious applications to keep the root zone leached.

Sulphate: Information as to the limits of tolerance of this constituent of irrigation water is much less precise than that in respect to chloride. It is recognized that if sulphate is associated with an abundance of calcium it is not likely to become injurious to crops because the limit of solubility of calcium sulphate (2000 ppm) is below the limit of crop tolerance. On the other hand the sulphates of magnesium and sodium are highly soluble and in the absence of sufficient calcium to precipitate sulphate from the soil solution, this constituent might reach concentrations injurious to crop plants. For convenience

in classifying waters, concentration limits have been adopted for sulphate analogous to those used for chloride (in terms of milligram equivalents), i.e., those containing less than 4 milligram equivalents, 192 ppm, are classed as safe for irrigation use so far as this constituent is concerned, while those ranging up to 10 milligram equivalents, 480 ppm, are placed in the doubtful class, with those ranging above 480 ppm as possibly harmful. It must be emphasized that these limits are somewhat arbitrary and that the quality of water in respect to its sulphate content should be considered in conjunction with its calcium content or at least in conjunction with its percentage of sodium. If sulphate concentration and per cent sodium are high the water may be unsatisfactory for irrigation use.

Nitrate: This constituent rarely occurs in irrigation waters in harmful concentrations. It is reported for two reasons. Its occurrence has a certain geographic or geological significance. Also, it is sometimes used as an indication of the contamination of water supplies as by sewage effluents. It is to be noted that nitrate occurs in relatively high concentrations in some of the underground waters of the South Coastal Basin. It is the writer's view that these high concentrations should not be generally interpreted as evidence of sewage contamination, or as the result of the accumulation of fertilizer residues from cultivated lands. Both these sources may have contributed to some extent to the present condition but it is highly probable that they are both subordinate to other and natural conditions not yet fully understood.

Calcium, Magnesium, and Sodium: In the detailed tables of analytical data on which this report is based these three constituents have been recorded separately. In the discussion of the irrigation waters in this report they have been taken together as the components of the ratio designated "per cent sodium." The separate determination and reporting of these three constituents affords the basis for a criterion that is useful in determining the sources of salinity as discussed later in the case of suspected sea-water intrusion along the ocean front of the Coastal Plain.

TABLE 1. SURFACE WATERS IN SAN FERNANDO VALLEY

TABLE I. SURFACE WATERS IN SAN FERNANDO VALLEY—Continued

Number	Location and description	Location number	Time of day	Discharge in second-feet	Laboratory number	Date	Constituents (parts per million)								
							Specific electrical conductivity at 25°C (K x 10 ⁴)	Boron ppm	Per cent sodium	Chloride radicle (Cl ⁻)	Bicarbonate radicle (HCO ₃ ⁻)	Nax100 Ca + Mg + Na			
S5030-B-9	Big Tujunga Creek, NE. of Sunland. Sampled at U. S. G. S. water stage recorder near center of Sec. 32, T. 3N, R. 13W. S. B. & M. (unsurveyed), 4.2 miles from Foothill Blvd., just above where road crosses creek at west boundary of State Game Refuge. Drainage area 106 square miles. Discharge measurements by U. S. G. S.	S5030	.....	0.2 0.1 0.2 0.2 2.6	110 292 435 599 651	7/2/31 9/1/31 10/15/31 12/14/31 1/19/32	54.4 66.9 62.0 53.7 50.6	30 0.57 0.47 0.51 0.52	60 68 302 27 259	11 9 12 13 13	60 68 302 27 259	0 0 0 0 0	54 65 21 12 19	21 23 43 38 38	
S4913-C-7	Big Tujunga Wash, W. of Sunland. Sampled at Mulholland St. (Stoudhurst Ave.) Bridge, at Los Angeles County Flood Control District, gaging station F C 20. Use: Sampled before and after storm. Discharge measurements by I. A. C. F. C. D.	S4913	6.45 a.m., 4.10 p.m., 3.00 p.m., 8.25 p.m., 5.15 p.m.	90 600 900 500 75	(e) 2/ 2/ 2/ 2/	5/15/32 7/15/32 7/15/32 9/16/32 10/15/32	35.3 37.7 39.3 41.9 43.8	0.22 0.13 0.12 0.18 0.21	186 189 189 207 219	7 7 7 7 7	7 7 7 28 28	7 7 7 Tr. Tr.	30 30 30 Tr. Tr.	39 39 39 13 24	
S3973-E-10	Verdugo Canyon Creek, NE. of Glendale. Sampled under bridge at La Canada Blvd. crossing. Water rises below Colma Dr. Use: Diverted by city of Glendale to reservoir for municipal purposes.	S3973	.....	.....	346 433 600 725 809 1050 1544 1580	9/23/31 10/15/31 12/16/31 2/15/32 3/14/32 6/13/32 11/19/32 12/10/32	30.8 36.8 40.9 59.1 60.6 60.6 48.6 47.2	0.09 0.01 0.06 0.05 0.08 0.05 0.10 0.10	22 143 143 146 146 143 134 18	75 64 96 107 139 139 137 134	22 12 12 12 12 12 11 11	45 35 48 48 48 48 48 48	1 1 1 1 1 1 1 1	1 1 1 40 40 40 40	1 1 1 17 17 17 17 20
S4801-C-5	Bull Canyon Creek, W. of San Fernando. 1,200 feet N. of Rimaldi St., 800 feet W. of Havenhurst Ave. Sampled 100 feet above Sulphur Spring. Use: Irrigation.	S4801	.....	.....	1106 1106	6/23/32 6/23/32	120 0.52	32	381 381	73 73	108 111	1 18	48 110	20 40	20 40
S4801A-C-5	Sulphur Spring, W. of San Fernando. Spring on W. Bank of Bull Canyon Creek, 1,200 feet N. of Rimaldi St., 700 feet W. of Havenhurst Ave. Continuous flow, mixes with Bull Canyon water. Water has strong odor of H ₂ S.	S4801A	.....	.....	1105 1105	3/8/28 6/23/32	68.6 68.6	0.20	65 31	395 299	56 32	354 72	Tr. 0	18 68	18 21
S4801B-C-5	J. H. Elerath. Tie-draining outlet, W. of San Fernando. Sample from outlet at lower end of Rd 8 of owner's home ranch on N. bank of Bull Canyon Creek, 500 feet N. of Rimaldi St., 650 feet E. of Havenhurst Ave. Use: Not used. Continuous flow throughout year.	S4801B	.....	.....	1107 1107	3/8/28 6/23/32	85.6 85.6	0.39	42 38	437 381	46 66	277 43	4 1	89 74	22 26
S4811-C-5	J. H. Elerath. W. of San Fernando. Sampled at small lake 1,000 feet N. of Rimaldi St., 1,200 feet E. of Havenhurst Ave. Use: Irrigates 15-20 acres. Continuous flow throughout year. Water rises in canyon about 1,500 feet above lake.	S4811	.....	.....	1108	2/21/30 6/23/32	47.9 0.18	60 43	583 159	108 60	385 8	1 0	122 37	36 11	

^a Includes small equivalent quantity of Carbonate (CO₃²⁻).^b Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.^c Information from W. H. Wood and F. B. Laverty.^d Analysis by Charles D. Summels, Ph.D., Covina, California.^e Analysis by United States Department of Agriculture Rubidoux Laboratory, Riverside, California.

TABLE 2. IMPORTED WATERS - SAN FERNANDO VALLEY

SAN FERNANDO VALLEY
S5908-B-5. LOS ANGELES AQUEDUCT

TABLE 2. IMPORTED WATERS - SAN FERNANDO VALLEY—Continued

Owner City of Los Angeles.

Location and description—Owens Valley water from aqueduct at San Fernando Power House above upper San Fernando Reservoir, N.W. of San Fernando.

Ground elevation—1,235 ft. from U.S.G.S. topog., by D. W. R.

Use—Municipal and irrigation.
Source of information—Analysis by United States Department of Agriculture, Bulidous Laboratory, Riverside, California. Discharge data from City of Los Angeles, Department of Water and Power.

Location number—S5-5908

Date	Discharge in second-feet	Specific electrical conductance (K $\times 10^3$ at 25°C)	Constituents (parts per million)						Constituents (parts per million)					
			Boron ppm	Percent Sodium Na $\times 100$ Ca + Mg + Na	Chloride radicle (Cl)	Bicarbonate radicle (HCO ₃)	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)	Calcium (Ca)	Magnesium (Mg)	Chloride radicle (Cl)	Bicarbonate radicle (HCO ₃)	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)
9/24/29	...	328	40.2	0.58	...	...	...	...	...	...	28	...	...	...
10/1/29	...	368	43.2	0.66	...	...	...	...	...	...	32	...	...	...
10/6/29	...	328	43.6	0.60	...	...	...	...	...	...	31	...	...	...
10/15/29	...	225	43.0	0.56	...	...	...	...	...	...	23	...	...	...
10/22/29	...	216	43.4	0.64	...	...	...	...	...	...	27	...	...	...
10/29/29	...	271	45.6	0.73	...	...	...	...	...	...	36	...	...	...
11/7/29	...	259	45.2	0.66	...	...	...	...	...	...	32	...	...	...
11/12/29	...	231	44.4	0.66	...	...	...	...	...	...	33	...	...	...
11/19/29	...	231	44.4	0.66	...	...	...	...	...	...	30	...	...	...
11/26/29	...	230	45.0	0.67	...	...	...	...	...	...	31	...	...	...
12/3/29	...	262	44.0	0.66	...	...	...	...	...	...	31	...	...	...
12/10/29	...	316	43.5	0.60	...	...	...	...	...	...	32	...	...	...
12/17/29	...	355	42.9	0.66	...	...	...	...	...	...	32	...	...	...
12/24/29	...	252	41.7	0.64	...	...	...	...	...	...	33	...	...	...
12/31/29	...	224	40.9	0.57	...	...	...	...	...	...	34	...	...	...
1/7/30	...	244	41.2	0.76	...	...	...	...	...	...	32	...	...	...
1/14/30	...	230	43.1	0.71	...	...	...	...	...	...	35	...	...	...
1/21/30	...	328	44.2	0.73	...	...	...	...	...	...	35	...	...	...
1/28/30	...	272	40.4	0.62	...	...	...	...	...	...	36	...	...	...
2/4/30	...	245	41.8	0.60	...	...	...	...	...	...	41	...	...	...
2/11/30	...	239	40.4	0.61	...	...	...	...	...	...	33	...	...	...
2/18/30	...	262	40.1	0.68	...	...	...	...	...	...	32	...	...	...
2/25/30	...	203	45.9	0.66	...	...	...	...	...	...	29	...	...	...
3/4/30	...	222	41.6	0.56	...	...	...	...	...	...	41	...	...	...
3/11/30	...	281	43.3	0.64	...	...	...	...	...	...	33	...	...	...
3/18/30	...	258	44.9	0.57	...	...	...	...	...	...	31	...	...	...
3/25/30	...	178	45.8	0.68	...	...	...	...	...	...	33	...	...	...
4/1/30	...	142	47.6	0.62	...	...	...	...	...	...	29	...	...	...
4/8/30	...	142	47.6	0.62	...	...	...	...	...	...	33	...	...	...
4/15/30	...	133	43.7	0.62	...	...	...	...	...	...	31	...	...	...
4/22/30	...	183	44.1	0.67	...	...	...	...	...	...	32	...	...	...
4/29/30	...	200	44.3	0.67	...	...	...	...	...	...	30	...	...	...
5/6/30	...	242	45.5	0.64	...	...	...	...	...	...	32	...	...	...
5/13/30	...	395	44.8	0.79	...	...	...	...	...	...	31	...	...	...
5/20/30	...	379	45.0	0.67	...	...	...	...	...	...	30	...	...	...
5/27/30	...	307	46.3	0.70	...	...	...	...	...	...	31	...	...	...
5/3/30	...	307	46.3	0.67	...	...	...	...	...	...	33	...	...	...
5/10/30	...	328	47.4	0.62	...	...	...	...	...	...	30	...	...	...
5/17/30	...	296	45.3	0.73	...	...	...	...	...	...	31	...	...	...
5/24/30	...	183	44.1	0.67	...	...	...	...	...	...	31	...	...	...
5/31/30	...	200	44.3	0.67	...	...	...	...	...	...	30	...	...	...
6/7/30	...	242	45.5	0.74	...	...	...	...	...	...	32	...	...	...
6/14/30	...	374	45.7	0.74	...	...	...	...	...	...	33	...	...	...
6/21/30	...	372	45.3	0.74	...	...	...	...	...	...	32	...	...	...
6/28/30	...	365	44.8	0.79	...	...	...	...	...	...	31	...	...	...
7/5/30	...	369	43.7	0.67	...	...	...	...	...	...	30	...	...	...
7/12/30	...	372	43.7	0.67	...	...	...	...	...	...	31	...	...	...
7/19/30	...	372	43.7	0.67	...	...	...	...	...	...	31	...	...	...
7/26/30	...	372	43.7	0.67	...	...	...	...	...	...	31	...	...	...
8/2/30	...	374	45.7	0.74	...	...	...	...	...	...	32	...	...	...
8/9/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
8/16/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
8/23/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
8/30/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
9/6/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
9/13/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
9/20/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
9/27/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
10/4/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
10/11/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
10/18/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
10/25/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
11/1/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
11/8/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
11/15/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
11/22/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
11/29/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
12/6/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
12/13/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
12/20/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
12/27/30	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
1/3/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
1/10/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
1/17/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
1/24/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
1/31/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
2/7/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
2/14/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
2/21/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
2/28/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
3/6/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
3/13/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
3/20/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
3/27/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
4/3/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
4/10/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
4/17/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
4/24/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
5/1/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
5/8/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
5/15/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
5/22/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
5/29/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
6/5/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
6/12/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
6/19/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
6/26/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
7/3/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
7/10/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
7/17/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
7/24/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
7/31/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
8/7/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
8/14/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
8/21/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
8/28/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
9/4/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
9/11/31	...	372	45.3	0.74	...	...	...	...	...	...	31	...	...	...
9/18/31	...	37												

TABLE 2. IMPORTED WATERS—SAN FERNANDO VALLEY—Continued

TABLE 2. IMPORTED WATERS—SAN FERNANDO VALLEY—Continued

Owner—City of Los Angeles.
 Location and description—Sampled at outlet from reservoir. W. of San Fernando.
 Ground elevation—7,025, from U.S.G.S. topog., by D. W. R.
 Use—Municipal and irrigation.
 Source of information—Analysis by United States Department of Agriculture, Rabidoux Laboratory, Riverside, California.
 Location number S4821.

Date	Dis-charge in second- feet	Specific elec- trical con- ductance ($K \times 10^3$ at 25°C)	Per cent Sodium $Na \times 10^6$ $Ca + Mg$ + Na	Constituents (parts per million)					Constituents (parts per million)							
				Bor- on ppm	Chlor- ide radicle (Cl ⁻)	Sul- phate radicle (SO ₄ ²⁻)	Nitrate radicle (NO ₃ ⁻)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Boron ppm	Per cent Sodium $Na \times 10^6$ $Ca + Mg$ + Na	Bicar- bonate radicle (HCO ₃ ⁻)	Chloro- ride radicle (Cl ⁻)	Sul- phate radicle (SO ₄ ²⁻)	Nitrate radicle (NO ₃ ⁻)
2/17/31	273	41.9	0.54	47	162	16	35	—	—	7	b41	b41	b43	b37	b35	b35
2/24/31	340	50.2	0.51	36	229	14	40	—	—	8	b43	b43	b43	b37	b35	b35
3/3/31	244	41.3	0.48	47	162	18	41	—	—	7	b37	b37	b37	b37	b35	b35
3/10/31	272	41.0	0.58	45	149	18	31	—	—	7	b37	b37	b37	b37	b35	b35
3/17/31	258	42.8	0.58	42	151	21	27	—	—	7	b35	b35	b35	b35	b35	b35
3/24/31	347	41.8	0.54	53	174	21	38	—	—	7	b51	b51	b51	b51	b51	b51
3/31/31	361	42.8	0.53	52	177	21	36	—	—	7	b51	b51	b51	b51	b51	b51
4/7/31	390	43.2	0.60	53	180	21	38	—	—	7	b53	b53	b53	b53	b53	b53
4/14/31	365	43.3	0.56	52	183	23	38	—	—	8	b54	b54	b54	b54	b54	b54
4/21/31	387	44.2	0.58	55	183	20	38	—	—	6	b55	b55	b55	b55	b55	b55
4/28/31	253	44.0	0.50	48	162	21	40	—	—	8	b45	b45	b45	b45	b45	b45
5/5/31	227	44.1	0.59	55	189	25	37	—	—	8	b58	b58	b58	b58	b58	b58
5/12/31	325	44.9	0.54	50	186	18	29	—	—	7	b48	b48	b48	b48	b48	b48
5/19/31	299	44.0	0.62	50	180	18	38	—	—	7	b49	b49	b49	b49	b49	b49
5/26/31	310	44.3	0.64	56	189	27	35	—	—	8	b49	b49	b49	b49	b49	b49
6/2/31	326	44.1	0.60	54	195	23	43	—	—	7	b59	b59	b59	b59	b59	b59
6/9/31	290	44.4	0.54	54	189	21	27	—	—	9	b59	b59	b59	b59	b59	b59
6/16/31	384	44.6	0.65	53	192	23	39	0	—	7	b52	b52	b52	b52	b52	b52
6/23/31	375	44.1	0.55	54	183	25	39	0	—	7	b57	b57	b57	b57	b57	b57
6/30/31	386	43.7	0.56	56	186	23	39	Tr	—	7	b56	b56	b56	b56	b56	b56
7/7/31	369	43.0	0.55	51	177	21	36	0	—	7	b59	b59	b59	b59	b59	b59
7/14/31	400	41.9	0.58	54	189	27	35	—	—	7	b50	b50	b50	b50	b50	b50
7/21/31	400	42.7	0.66	57	186	21	36	Tr	—	7	b53	b53	b53	b53	b53	b53
7/28/31	388	44.6	0.65	44	146	16	35	0	—	6	b57	b57	b57	b57	b57	b57
8/4/31	394	41.3	0.67	58	183	20	39	2	—	7	b58	b58	b58	b58	b58	b58
8/11/31	405	40.0	0.60	54	165	20	32	2	—	7	b49	b49	b49	b49	b49	b49
8/18/31	367	36.5	0.53	43	149	18	33	1	—	7	b36	b36	b36	b36	b36	b36
10/4/31	140	40.7	0.46	—	162	20	—	—	—	7	—	—	—	—	—	—
11/1/31	316	40.2	0.52	—	174	18	—	—	—	7	—	—	—	—	—	—
12/9/31	398	37.4	0.33	—	157	27	—	—	—	7	—	—	—	—	—	—
1/26/32	392	39.3	0.33	—	151	20	—	—	—	7	—	—	—	—	—	—
2/25/32	300	44.6	0.66	—	171	21	—	—	—	7	—	—	—	—	—	—
3/22/32	340	47.8	0.96	—	186	27	—	—	—	7	—	—	—	—	—	—
4/18/32	290	51.9	1.24	—	229	41	—	—	—	7	—	—	—	—	—	—
5/17/32	340	57.5	1.44	—	244	41	—	—	—	7	—	—	—	—	—	—
6/14/32	400	51.3	1.25	—	223	23	—	—	—	7	—	—	—	—	—	—
7/12/32	400	40.7	0.96	—	177	23	—	—	—	7	—	—	—	—	—	—
7/21/32	—	—	—	—	162	26	—	—	—	7	—	—	—	—	—	—
8/1/32	340	35.9	0.74	—	146	18	—	—	—	7	—	—	—	—	—	—
9/7/32	400	29.6	0.60	—	140	16	—	—	—	7	—	—	—	—	—	—
10/4/32	400	31.8	0.54	—	140	18	—	—	—	7	—	—	—	—	—	—
11/1/32	220	34.2	0.56	—	149	24	—	—	—	7	—	—	—	—	—	—

a Includes small equivalent quantity of Carbonate (CO_3^{2-}).

b Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

c Calcium and Magnesium determined together and calculated to equivalent quantity of Calcium.

a Includes small equivalent quantity of Carbonate (CO_3^{2-}).

b Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

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b Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

TABLE 3. WELLS IN SAN FERNANDO VALLEY

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million ^a)									
							Specific electrical conductance ($K \times 10^3$ at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Bicarbonate radicle (HCO ₃)	Chloride radicle (Cl ⁻)	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
A-1-B-4	Cascade Ranch, W. of San Fernando; 1,400 feet NE. of Balboa Ave., on N. side of Bee Canyon Creek, W. of Upper San Fernando Reservoir. Use: Capped, not used. Casing: 16 inches. Gravel 50-72; 190-194. Sample 1 from first gravel stratum. Sample 2 from second gravel stratum before perforating first gravel. Sample 3 after well had been pumped, and is composite of two gravel strata.	5899	1,280	*500	e1 e2 e3	11/12/31 11/12/31 11/30/31	0.50 0.47 0.55	26 23 18	228 288 342	39 42 40	1000 32 32	218 208 200	97 88 88	1158 4119 d 89		
A-2-B-5	G. Henry Stetson (Sombrero Ranch), Well 2, NW. of San Fernando; 100 feet NW. of Olden Ave., produced N., 1,000 feet NE. of Remsen St.; 100 feet N. of A-2a-B-5. Use: Irrigation and domestic. Casing: 18 inches.	5837	1,425	x300	354 1120	9/25/31 6/24/32	98.9 110	0.57 0.42	13 13	302 305	27 32	240 304	22 23	108 125	55 60	35 38
A-2a-B-5	G. Henry Stetson (Sombrero Ranch), Well 1, NW. of San Fernando; on N. line of Olden Ave., produced 940 feet NE. of Remsen St. Use: Irrigation and domestic. Casing: 14 inches.	5837A	1,422	x255	355 1121	9/25/31 6/24/32	82.0 89.6	0.46 0.26	13 13	225 238	34 32	240 328	22 28	108 12	55 12	35 29
A-3b-B-6	City of San Fernando, Well 4, San Fernando; 300 feet NW. of Hubbard Ave., 30 feet NE. of Mansfield St. Use: Municipal. Casing: 18 inches. Perfected 198-238; 291-295; 334-362; 361-387.	5969	1,244	*x481	(f) 1122	7/17/31 6/23/32	42.6	0.07	25	210 204	15 12	27 28	6 6	46 46	45 12	25
A-3e-B-6	City of San Fernando, Well 2, San Fernando; 50 feet SE. of Sante Ave., 50 feet SW. of Borden St. Use: Municipal. Gravel 100-130; 134-150; 156-250.	5969A	1,221	*x250	(f)	7/17/31	-----	-----	210	19	b17	-----	-----	-----	-----	-----
A-4-B-6	Ford-Craig Ranch, Pit 1, N. of San Fernando; 50 feet NE. of Garrett St., 45 feet SE. of Hubbard Ave. Use: Irrigation. Inter-connected to Pit 2.	5988	1,420	x400	1123	6/24/32	69.4	0.10	19	296	27	70	23	82	23	34
A-4g-B-6	Ford-Craig Ranch, NE of San Fernando; 50 feet NW. of McClay St., 0.70 mile NE. of Foothill Blvd., W. of Pacoma Creek at foot of bluff. Use: Irrigation.	5989	1,250	-----	1408	9/16/32	43.9	0.07	15	*189	7	62	Tr.	50	17	16
A-10b-D-3	W. M. Beckstead, N. of Oceansmouth; 50 feet S. of Roseoe Ave., 0.15 mile W. of De Soto Ave. Use: Irrigation. Gravel 29-41; 67-91; 203-299.	4708A	833	*x320	1100	6/22/32	99.2	0.23	23	308	55	176	18	112	33	58
A-11b-D-3	Wm. Mulholland, Well 1, SE. of Chatsworth; 0.5 mile N. of Nordhoff St., 20 feet W. of Corbin Ave., 20 feet S. of Plummer St. Use: Irrigation. Casing: 16 inches. Perfected 116-180; 233-245.	4735B	871	*x308	1101	9/25/31 6/22/32	99.2 98.7	0.30 0.27	18 16	284 278	32 28	242 228	27 31	127 129	34 33	47 39
A-13a-D-3	I. L. Hadley, SW. of N. Los Angeles; 25 feet S. of Stratford St., 375 feet E. of Corbin Ave. Use: Irrigation. Casing: 8-inch rotary hole, reamed to 30 inches. Gravel 90-106; 118-128; 142-143; 163-166.	4738	782	*x290	1102	6/22/32	118	0.31	18	287	39	350	11	154	41	55
A-17-C-4	Sunshine Ranch, W. of San Fernando; 2,900 feet N. of Rinaldi St., 200 feet W. of Zelzah Ave., extended in pump house 300 feet W. of creek. Use: Irrigation and domestic. Casing: 20 inches, 3' x 5', dug well. Pumps dry in four hours; refills in twenty-four hours.	4771	1,236	x432	1103	6/23/32	97.6	0.34	13	339	82	123	0	154	16	34
A-20a-C-5	J. H. Elerath, W. of San Fernando; 700 feet E. of Havenhurst Ave., 1,800 feet N. of Rinaldi St. Use: Irrigation. Casing: 5' x 5' dug well. Pumps dry in four hours; refills in twenty-four hours.	4801	1,070	30	(g) 1104	3/8/38 6/23/32	----- 346	0.34 1.77	34 44	68 46	60.7 1083	54 0	2 0	184 295	44 71	d152 315
A-24-B-5	R. Fratchao, NW. of San Fernando; 140 feet SW. of Monticello St., 0.3 mile SE. of Bledsoe Ave., 0.27 mile W. of San Fernando Road. Use: Irrigation and domestic. Casing: 10 inches. Perfected 60-131.	4830	1,155	*x131	1109	6/24/32	67.1	0.26	31	262	32	80	11	65	20	52
A-24a-C-5	General Petroleum Co., NW. of San Fernando; 600 feet SW. of Hubbard Ave., 30 feet NW. of corrugated iron building. Use: Industrial. Casing: 12 inches. Gravel 122-133.	4840	1,120	*x190	(h) (i) 1111	5/7/33 12/12/34 6/24/32	----- 33 43.2	----- 24 0.07	22 21 6	56 34 37	----- 214 207	55 48 2	25 0 46	11 0 8	d14 d34 25	
A-26a-D-5	Frank Spiechtig, Sepulveda; 30 feet E. of Noble Ave., 800 feet S. of Parthenia St. Use: Irrigation. Casing: 14 inches. Gravel 50-90; 188-203; 231-265; 264-303; 323-342; 344-383.	4837	812	*x385	358 1110	9/25/31 6/24/32	145 158	0.28 0.35	26 271	36 26	532 501	19 18	169 186	46 52	101 109	

TABLE 3. WELLS IN SAN FERNANDO VALLEY—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)						
							Specific electric conductivity ($K \times 10^4$ at $25^\circ C$)	Boron ppm	Percent sodium	Na $\times 100$	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca^{2+})
A-28b-B-6	City of San Fernando, Well 1, San Fernando; 300 feet SW. of Hubbard Ave., 600 feet NE. of 4th St. Use: Municipal. Casing: 15 inches. (1) Mean of 13 samples from 7/6/28 to 9/25/28, inclusive; (2) mean of 12 samples from 10/2/28 to 12/26/28, inclusive; (3) mean of 12 samples from 1/2/29 to 3/26/29, inclusive; (4) mean of 15 samples from 4/1/29 to 7/23/29, inclusive.	4850B	1,130	x170	11	Mean	52.3	0.30	27	241	15	64	—
					12	Mean	53.1	0.33	30	231	17	61	—
					13	Mean	55.7	0.30	18	230	16	51	—
					14	Mean	54.5	0.26	21	228	16	41	—
					(1)	Mean	57.6	0.35	23	244	18	55	—
					356	9/25/31	53.6	0.24	23	241	16	59	8
					1112	6/24/32	53.5	0.24	23	238	16	53	6
													56
													23
													32
													30
A-31a-D-6	Los Angeles Creamery, S. of San Fernando; 300 feet SW. of Woodman (Payton) Ave., 100 feet SE. of Brandt Ave., extended Use: Irrigation and industrial. Casing: 20 inches.	4867	824	x850	1113	Mean	33.6	9/25/31	49.6	0.28	19	250	9
					1113	6/24/32	49.0	0.06	18	244	9	39	5
A-41a-C-7	Wildwood Trout Resort, W. of Sunland; 650 feet E. of Orcus Ave., 705 feet S. of Tujunga Valley Ave. (Foothill Blvd.). Use: Trout lakes and domestic.	4932	1,077	x147	1114	Mean	34.3	9/23/31	61.6	0.29	20	241	14
					1114	6/24/32	67.2	0.15	20	238	16	128	4
A-44a-C-8	W.O. Taylor, W. of Sunland; 225 feet NE. of N. end of Tujunga Valley Ave. (Foothill Blvd.) main bridge over Big Tujunga Wash. Use: Domestic and irrigation. Casing: 12 inches. Gravel 43-70; 80-98.	4962	1,193	*x112	1115	Mean	34.2	9/23/31	105	0.34	17	256	16
					1115	6/23/32	66.6	0.20	25	235	11	141	1
A-47-C-8	Judge Crail, N. of Sunland; W. of Oro Vista Ave., extended, 26 feet from cliff on N. side of Big Tujunga Wash. Use: Domestic and irrigation.	4982	1,300	*x480	1116	Mean	34.6	6/24/32	71.6	0.59	47	342	16
					1116	7/24/31	71.6	0.59	47	342	16	72	Tr.
A-48f-C-8	American States Water Service Co. Sunland; 25 feet S. of Fenwick St. 75 feet E. of McVine Ave. Use: Municipal. Casing: 16 inches. Perforated 66-74; 116-122; 148-168; 230-236.	4983F	1,400	*x290	1117	Mean	34.1	9/23/31	32.7	0.06	22	180	11
					1117	6/24/32	32.5	0.01	26	177	7	141	—
A-49a-C-8	American States Water Service Co. Sunland; 250 feet S. of Foothill Blvd. (Michigan Ave.), 50 feet E. of Woolard Ave. Use: Municipal. Casing: 14 inches. Gravel 108-140; 156-256; 290-312; 322-324.	4994	1,460	*x350	1117	Mean	34.0	9/23/31	33.2	0.02	23	171	9
					1117	6/24/32	33.2	0.04	20	174	6	16	—
A-50b-D-9	Highway Highlands Water Co., SE. of Sunland; 75 feet S. of Foothill Blvd., 300 feet NW. of Central Ave. Use: Domestic. Casing: 12 inches.	5036	1,750	*x309	1118	Mean	34.0	9/23/31	33.2	0.02	23	171	9
					1118	6/24/32	33.2	0.04	20	174	6	16	—
A-53a-D-10	T.J. Lawrence, La Crescenta; 75 feet W. of Briggs Ave., 0.90 miles N. of Foothill Blvd. Use: Irrigation and domestic. Casing: 12 inches.	5066	1,915	*x350	1119	Mean	33.9	9/23/31	37.1	0.01	22	180	11
					1119	6/24/32	37.9	0.05	22	177	9	28	4
A-55b-D-9	City of Glendale, Starr Well 2, S. of La Crescenta; 60 feet W. of La Crescenta Ave., 1,890 feet S. of Honolulu Ave. Use: Municipal. Casing: 16 inches.	5069C	1,173	—	1120	Mean	33.8	9/23/31	34.8	0.04	25	171	12
					1120	6/14/32	77.4	0.45	56	421	55	2	0
A-56b-E-2	George Platt, Well 1, SW. of Owensmouth; 210 feet S. of Victory Blvd., 25 feet W. of Burroughs Ave. Use: Irrigation. Casing: 12 inches. Open bottom casing.	3561E	843	*x130	1063	Mean	33.3	9/24/31	136	0.37	26	296	62
					1063	6/15/32	132	0.35	24	296	62	383	25
A-57-F-1	Calabasas School District, Calabasas; 250 feet S. of Ventura Blvd., 1.35 miles SW. of Los Angeles city limits, 150 feet SE. of school building. Use: Domestic. Casing: 12 inches.	3544A	1,080	450	1061	Mean	33.8	6/14/32	191	1.84	70	528	80
					1061	6/14/32	191	1.84	70	528	80	460	11
A-56b-E-2	Anton Weber, Calabasas; 80 feet N. of Ventura Blvd., 1.22 miles SW. of Los Angeles city limits, 150 feet E. of Calabasas Hotel. Use: Domestic. Casing: 4 x 4 ang well.	3544A	1,050	40	1062	Mean	33.8	6/14/32	191	1.84	70	528	80
					1062	6/14/32	191	1.84	70	528	80	460	11
A-57a-F-2	Industrial Fuel Supply Co., Calabasas; 30 feet S. of Ventura Blvd., 0.42 mile W. of Los Angeles city limits. Use: Domestic. Casing: 10 inches. Perforated in bottom 20 feet only; surface water cemented off.	3554	945	353	1063	Mean	34.3	6/14/32	452	1.98	91	1095	108
					1063	6/14/32	452	1.98	91	1095	108	1392	50
A-57e-F-2	Joe Duke, Calabasas; 155 feet S. of Ventura Blvd., 300 feet W. of Los Angeles city limits. Use: Irrigation. Casing: 5 inches. In bottom of 4 x 4 pit, 34 feet deep.	3564A	932	75	1065	Mean	34.5	6/14/32	217	0.58	40	442	71
					1065	6/14/32	217	0.58	40	442	71	746	4
A-58d-E-3	Brant Ranch, S. of Owensmouth; 0.25 miles S. of Van Owen St., 0.30 mile E. of Topanga Canyon Road in line of Owensmouth Ave., extended S. Use: Irrigation.	3590	798	*x246	1069	Mean	34.2	6/14/32	152	0.29	23	290	38
					1069	6/14/32	152	0.29	23	290	38	571	6
A-59a-F-2	Park Moderate, S. of Calabasas; 30 feet N. of Dry Canyon Creek, 0.25 miles S. of Los Angeles city limits. Use: Domestic and irrigation. Casing: 10 inches.	3575	980	—	1068	Mean	34.3	6/14/32	278	0.34	32	516	73
					1068	6/14/32	278	0.34	32	516	73	1164	6
													288
													104

TABLE 3. WELLS IN SAN FERNANDO VALLEY—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)									
							Boron ppm	Specific electrical conductivity ($K \times 10^8$ at $25^\circ C$)	Percent sodium $\frac{Na}{Ca+Mg} \times 100$ + Na	Bicarbonate radical (HCO_3^-)	Chloride radical (Cl^-)	Sulfate radical (SO_4^{2-})	Nitrate radical (NO_3^-)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
A-62-E-3	B. Vullicella, E. of Owensmouth; 125 feet S. of Corbin Ave., 0.23 miles S. of Sherman Way. Use: Irrigation. Casing: 12 inches. Perforated 54-68.	3630	753	*x182	1095	6/22/32	163	0.37	25	302	55	55	8	187	55	106
A-62a-E-3	Hugo Carlson, SW. of N. Los Angeles; 25 feet E. of Mason Ave., 100 feet S. of Van Owen St. Use: Domestic. Casing: 8 inches. U. S. G. S. No. C-3.	3620	765	x33	1070	6/15/32	123	0.26	20	342	39	307	6	134	53	63
A-67-E-4	Tarzana Mineral Water. W. of Encino; 250 feet E. of Lindley Ave., 440 feet N. of Ventura Blvd. Use: Bottled mineral water. Casing: 20 inches. Perforated 735-755.	3673	800	*2100	1066	6/15/32	245	0.41	59	430	130	798	Tr.	97	72	360
A-67a-F-4	El Caballero Estates. W. of Encino; 200 feet W. of Encino Ave., on S. line of Valley Vista Blvd., 1,100 feet E. of Lindley Ave., 2,800 feet S. of Ventura Blvd. Use: Bottled mineral water. Casing: 8 inches and 5 inches. Water coming from 900-foot level between 8-inch and 5-inch casings.	3674	835	1500	(^b) 1067	7/23/31 6/15/32	232	0.48	81 79	398 473	72 73	728 718	0 0	43 44	28 34	4444 428
A-70-E-5	Frank P. Ghiglia, W. of Van Nuys; 40 feet S. of Victory Blvd., 900 feet W. of Haventhurst Ave. Use: Irrigation. Casing: 16 inches. Perforated 203-222.	3701	720	*x283	1071	6/15/32	153	0.39	25	330	57	493	44	184	57	107
A-70b-E-5	Art. Robinson, Well 1, W. of Van Nuys; 20 feet S. of Oxnard Ave., 90 feet E. of Haventhurst Ave. Use: Irrigation. Casing: 14 inches. Perforated 53-64-170-188; 209-215; 329-336; 339-353. Water has strong odor of H_2S .	3701A	705	*362	352	9/24/31	126	1.12	56	336	80	268	6	70	29	173
A-73a-E-5	Art. Robinson, Well 2, W. of Van Nuys; 50 feet S. of Oxnard Ave., 75 feet E. of Haventhurst Ave. Use: Irrigation. Casing: 12 inches. Perforated 54-68.	3701B	705	*80	1073	6/15/32	224	0.47	23	278	64	1015	23	29I	85	154
A-73b-E-5	G. Rizzo, N. of Encino; 55 feet N. of Magnolia Blvd., 0.20 miles E. of Balboa Ave. Use: Irrigation. Casing: 14 inches.	3703	723	(x)	1074	6/15/32	80.9	0.10	16	324	34	110	18	87	38	32
A-73c-E-5	A. Nicholls, SW. of Van Nuys; 15 feet S. of Oxford St., 15 feet W. of Sepulveda Blvd. Use: Irrigation. Perforated 54-66; 159-180.	3732A	703	*190	351	9/24/31	150	0.25	27	244	73	516	12	159	55	104
A-73e-E-5	Robert Schmidt, SW. of Van Nuys; 120 feet S. of Oxford St., 0.2 miles E. of Sepulveda Blvd. Use: Domestic. Casing: 6 inches. Perforated 44-51.	3732C	697	*58	1075	6/15/32	104	0.48	38	357	34	202	23	97	27	99
A-76d-E-6	W. P. Whitsett, SE. of Van Nuys; 0.10 miles N. of Oxford St., 0.10 miles W. of Fulton Ave. Use: Irrigation. Casing: 14 inches. Perforated 228-242; 248-256; 267-323; 340-406; 413.	3771A	691	*424	1076	6/15/32	116	0.17	26	235	48	365	4	119	43	75
A-77e-E-6	McKinley School for Boys, SE. of Van Nuys; 1,300 feet W. of Woodman Ave., 1,300 feet N. of Riverside Drive. Use: Irrigation. Casing: 20 inches. Perforated below 20 feet from ground surface.	3763B	650	285	1096	6/22/32	151	2.45	82	418	142	219	0	28	18	294
A-78f-E-6	W. F. Ziegler, E. of Van Nuys; 15 feet S. of Victory Blvd., 0.24 miles W. of Whittsett Ave. Use: Irrigation. Casing: 12 inches.	3791A	700	-----	1077	6/14/32	150	0.22	26	223	39	598	15	178	49	103
A-80d-E-7	City of Los Angeles, Well 13, NW. of North Hollywood; 60 feet S. of Van Owen St., 135 feet W. of Beck Ave. Use: Municipal.	3810A	712	-----	348	9/24/31 6/22/32	33.1 35.8	0.15 0.14	25 22	177 174	7 9	29 27	2	38 50	12 12	22 20
A-80e-E-7	City of Los Angeles, Well 5, NW. of North Hollywood; 255 feet N. of Van Owen St., 60 feet E. of Hinds Ave. Use: Municipal.	3810B	720	-----	(^b) (^c) (^d) (^e)	8/3/28 8/10/28 8/17/28	35.9 37.3 35.3 36.5	0.11 0.14 0.12 0.13	33 38 40 31	183 195 215 195	7 8 6 6	27 33 33 26	- - - -	50 52 58	d29 d35 d41 d30	
A-80h-E-7	O. L. Anderson, NW. of North Hollywood; 125 feet N. of Erwin St., 500 feet W. of Lankesterin Blvd. Use: Domestic.	3811A	679	96	1152	7/19/32	43.1	0.07	17	186	18	35	7	55	12	18
A-81k-E-7	North Hollywood Park Dept., W. of North Hollywood; 150 feet E. of Beck Ave., 175 feet S. of Chandler Blvd. Use: Irrigation and domestic. Gravel 52-90; 117-130.	3813A	635	*132	349	9/24/31 6/15/32	122 121	0.24 0.27	31 30	226 232	44 48	408 400	9 6	123 125	35 38	96 91
A-84f-E-7	Polar Water Co., North Hollywood; 100 feet S. of Burbank Blvd., 0.15 miles W. of Cahuenga Blvd. Use: Bottled water.	3832D	618	-----	1153	7/19/32	43.1	0.08	21	189	12	30	11	53	12	23

TABLE 3. WELLS IN SAN FERNANDO VALLEY—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance ($K_x 10^3$ at 25°C)	Constituents (parts per million)							
								Boron ppm	Percent sodium $\frac{Na \times 100}{Ca + Mg + Na}$	Sulfate radicle (SO_4)	Chloride radicle (Cl^-)	Nitrate radicle (NO_3^-)	Magnesium (Mg)	Sodium (Na)	
A-80d-E-7	City of Burbank, New Well 6, Burbank; 55 feet S. of Jeffries Ave., 90 feet E. of Maple St., 50 feet E. of Old Well 6, Use: Municipal, Casing: 20 inches, Perforated 135-186, 203-229; 286-285, 310-335, 339-345; 412-420; 445-453.	3841C	632	*x472	(1) 1070	4/28/31 6/15/32	43.7	0.14	22	214 204	14 6	49	15	23	
A-87-F-7	City of Burbank, Well 5, Burbank; 200 feet S. of Chatsworth Branch of S. P. R. R., 100 feet E. of Rose St. Use: Municipal, F. G. Locke, SW of Burbank; 40 feet W. of Hollywood Way, 50 feet S. of Rowland Ave. Use: Domestic, Casing: 8 inches, Gravel 38-51.	3843	590	(x)	(1) 1070	4/28/31	.....	.....	189	12	121	.....	.....	.....
A-88-F-8	Lakeside Golf Club, S. of North Hollywood; 200 feet W. of Valley Spring Lane, 35 feet W. of Arcoa Ave., extended. Use: Irrigation, Casing: 16 inches, Perforated 30-127.	3845A	560	*140	1154	7/19/32	110	0.19	27	274	34	310	27	35	
A-93-E-8	City of Burbank, Well 1, Burbank; 45 feet W. of Lake St., 93 feet S. of Magnolia Blvd. Use: Municipal, Casing: 12 inches, Perforated 62-97; 126-140; 150-164.	3882B	560	(x)	(1) 1070	4/28/31	.....	.....	207	11	b23	-	.....	.....
A-93d-E-8	City of Burbank, Well 2, Burbank; 50 feet W. of Lake St., 143 feet S. of Magnolia Blvd. Use: Municipal, Casing: 18 inches.	3882D	560	162	(1) 1070	4/28/31	.....	.....	214	12	b40	.....	.....	.....
A-93e-E-8	City of Burbank, Well 3, Burbank; 25 feet E. of Lake St., 135 feet S. of Magnolia Blvd. Use: Municipal, Casing: 16 inches, Perforated 62-97; 126-140; 150-164.	3882E	560	169	337	4/28/31 9/24/31	44.4	0.12	19	214 220	13 14	b20	.....	.....
A-93f-E-8	City of Burbank, Well 4, Burbank; 33 feet E. of Lake St., 200 feet S. of Magnolia Blvd. Use: Municipal, Casing: 16 inches.	3882F	560	228	(1) 1070	4/28/31	.....	.....	232	15	b20	.....	.....	.....
A-93g-E-8	J. S. Harris, Burbank; 15 feet E. of Mariposa St., 700 feet N. of Alameda Ave. Use: Irrigation, Casing: 16 inches.	3883	525	x90	1098	6/22/32	55.0	0.08	18	226	28	24	23	64	17
A-95b-F-9	City of Glendale, Grandview Well 1, Glendale; 50 feet SW of Sun Fernand Road, 200 feet NW. of Grand View Ave., Use: Municipal, Casing: 16 inches, Gravel 79-88; 178-189; 250-283; 380-412; 433-500.	3913	469	*x500	1081	9/23/31 6/15/32	53.4 51.7	0.21 0.21	33	210 210	36 28	43	1	51	12
A-96a-F-9	City of Los Angeles, Griffith Park Well 1, E. of Glendale; 210 feet S. of Riverside Dr., 450 feet S. of Los Angeles River, 2.82 miles NE. along Riverside Dr. from Los Feliz Road, Use: Irrigation, Casing: 20 inches, Perforated 40-160; 160-261.	3914	452	*294	1086	6/13/32	65.6	0.25	29	217	25	126	8	67	18
A-96d-F-9	City of Glendale, Well 12, Glendale; 150 feet W. of Los Angeles River, 1.95 miles SE. of Puha Ave. Use: Municipal, Casing: 18 inches, Perforated 155-184; 188-200; 266-402; 414-466. Slight H ₂ S odor.	3914C	467	*x534	1084	9/23/31 6/13/32	49.0 52.0	0.14 0.20	30 34	217 217	18 25	54 58	4 2	49 46	17 13
A-96e-F-9	City of Los Angeles, Griffith Park Well 2, E. of Glendale; 800 miles NE. along Riverside Dr. from Los Feliz Road. Use: Irrigation, Casing: 16 inches, Perforated 22-73; 80-88.	3915	446	*151	1085	6/13/32	81.9	0.33	29	235	34	173	11	87	23
A-97L-F-9	Forest Lawn Cemetery Assn., Well 2, S. of Glendale; 17 feet E. of Glendale Ave., 200 feet N. of San Fernando Road, Use: Irrigation. Casing: 16 inches, Gravel 76-121; 166-179.	3947A	438	*179	1082	6/13/32	46.3	0.09	25	210	21	24	11	42	19
A-98-E-10	City of Glendale, Glorieta Well 4, NE. of Glendale; 150 feet S. of Ramona Ave., 340 feet E. of Hernosita Dr. Use: Municipal, Casing: 16 inches, Gravel 90-98; 108-133; 165-185.	3961	965	*x189	1083	9/23/31 6/13/32	30.9 31.2	0.06 0.06	24 21	155 156	9 7	12 8	6 7	29 29	13 13

^a Log in files of Division of Water Resources.^b Water level in files of Division of Water Resources.^c Includes small equivalent quantity of Carbonate (CO_3^{2-}).^d Sulphate (SO_4^{2-}) determined by turbidity method.^e Calcium and Magnesium determined together and calculated to equivalent quantity of Calcium.^f Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.^g Analysis by Santa Paula Citrus Fruit Association Chemical Laboratory, Santa Paula, California.^h Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.ⁱ Analysis by Charles D. Samuels, Ph. D., Covina, California.^j Analysis by General Petroleum Corporation of California.^k Analysis by Los Angeles Testing Laboratory, Los Angeles.^l Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.

TABLE 4. WELLS IN UPPER SAN GABRIEL VALLEY

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance ($K_x 10^{-3}$ at 25°C)	Constituents (parts per million)								
								Boron ppm	Percent sodium Na x 1000 $\text{Ca} + \text{Mg}$ + Na	Bicarbonate radicle (HCO_3^-)	Chloride radicle (Cl ⁻)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Magnesium (Mg)	Sodium (Na)	
C-1d-E-11	Valley Water Co., Well 3, 1 ^{1/2} miles N. of Michigan Blvd., 90 feet E. of Hampton Road. Use: Domestic and irrigation. Casing: 20 inches. Gravel 230-257; 253-280; 282-310; 375-380; 437-439; 670-591. U.S. D. A. analysis on 10/23/31 is duplicate of D. W. R. Lab. No. 481.	4010C	1177	*x591	481 (e)	10/23/31 10/23/31	35.5 35.3	0.12 0.18	25 22	183 195	12 11	10 6	4 4	37 37	13 12	22 e19
C-6-E-11	City of Pasadena, Windsor Well, Altadena; 600 feet SE. of intersection of Mountain View St. and Windsor Ave. Use: Municipal. Casing: 36 inches in 150-foot pit. Perforated 353-359; 474-478; 498-503; 534-543.	4030C	1151	*x573	(d)	4/27/31	.....	.....	.....	183	12	b10	.....	.....	.....	.....
C-15a-F-11	City of Pasadena, Copelin No. 4 Motor, 2d well, Pasadena; 150 feet N. of Manzanita St., 100 feet E. of Mentone Ave. In same shaft as C-15-F-11. Use: Municipal. Casing: 14 inches. Gravel 167-384; 530-534.	4043C	918	*x684	(e)	Oct., 1918	.....	.....	27	146 17	33	16	30	11	e20	
C-17-F-11	City of Pasadena, Sunset Ave. Well, Pasadena; 200 feet NW. of Mountain St., 20 feet NE. of Manzanita Ave., 300 feet W. of intersection of Sunset Ave. and Mountain St. Use: Municipal. Casing: 26 inches in 70-foot pit. Perforated 245-325; 334-380; 396-415; 434-447; 472-483; 509-525; 535-543; 67-728.	4043B	934	*x751	(d)	4/27/31	.....	.....	.....	171	11	b12	.....	.....	.....	.....
C-20-F-11	City of Pasadena, Brookside Well, Pasadena; 400 feet N. of Linda Vista Ave., 300 feet W. of Arroyo Terrene, 100 feet E. of S.E. corner of plaque fence. Use: Not used, formerly municipal. Casing: 18 inches in 84-foot pit. W. S. P. 219, No. 466, Pasadena Quadrangle.	4034B	774	*x101	(e)	Oct., 1918	.....	.....	28	156	26	30	17	38	12	e26
C-22-F-11	City of Pasadena, Garfield Well, Pasadena; 500 feet N. of Villa St., 100 feet W. of Euclid Ave., extended. Use: Municipal. Casing: 24 inches in 167-foot pit. Perforated 162-257; 353-377; 355-380; 387-419; 602-620; 634-629. U. S. D. A. analysis on 10/23/31 is duplicate of D. W. R. Lab. No. 479.	4054	899	*x720	(d) 479 (e)	10/23/31 10/23/31	27.0 27.0	0.22 0.27	34 33	110 113 125	13 9 12	b18 20 20	9 8 8	23 24 13	9 13 13	23 e15
C-23d-G-11	City of South Pasadena, Arroyo Well 2, South Pasadena; N. 73° E., 1,650 feet from east end of Mission St. Arroyo Seco Bridge. Use: Proposed municipal. Casing: 16 inches. Perforated 22-27.	4028	580	*135	485	10/23/31	46.4	0.06	18	165	28	48	11	50	19	21
C-24a-F-11	City of South Pasadena, Alerton Well, South Pasadena; 116 feet W. of Fairview Ave., 420 feet S. of Columbia Ave. Use: Municipal. Casing: 16 inches. Perforated 82-150.	4047B	757	*195	(d)	8/31/31	.....	.....	.....	225	38	b38	.....	.....	.....	.....
C-30e-F-11	City of Pasadena, Alpine Well, Pasadena; 30 feet E. of Euclid Ave., at end of Alpine St. Use: Municipal. Casing: 18 inches. Perforated 80-90; 100-160; 170-275.	4057L	755	*x285	(d) 483	10/23/31	33.5	0.07	27	165	13	b20 17	7	36	12	23
C-37-E-11	Rubio Canyon Land and Water Assn., Figueroa St. Well 4, Altadena; 230 feet N. of Figueroa St., 200 feet E. of Crescent Ave. Use: Irrigation and domestic. Casing: 26 inches. Gravel 185-325; 335-347; 480-485; 548-553.	4041B	1151	*x650	480	10/23/31	23.9	0.02	32	119	7	4	9	22	7	19
C-39-E-12	Oak Park Water Co., Altadena; 50 feet S. of New York Ave., 1,000 feet W. of Santa Anita Ave. Use: Domestic. Casing: 14 inches. Gravel 240-280; 315-330. W. S. P. 219, No. 82, Pasadena Quadrangle.	4092	1010	*x386	482	10/23/31	27.1	0.25	23	140	7	8	4	30	11	16
C-44-F-12	City of Pasadena, Craig Well, Pasadena; 150 feet S. of Paloma St., 600 feet W. of Craig Ave., NE. well of two. Use: Municipal. Casing: 26 inches, in deep pit. Perforated 270-303; 310-319; 324-336; 433-435; 554-585; 563-623; 635-639; 717-753; 793-803; 807-822; 830-906; 925-943; 949-968; 1005-1009; 1022-1038; 1051-1055. W. S. P. 219, No. 83, Pasadena Quadrangle.	4094	878	*x1089	(d)	4/27/31	.....	.....	.....	140	11	b14	.....	.....	.....	.....
C-45a-F-12	City of Pasadena, Made Well (formerly A. B. Chapman Estate Well 5), Pasadena; 400 feet N. of Colorado St., 1,700 feet E. of Eaton, Wash. Use: Municipal. Casing: 8 inches. Perforated 111-119; 179-200; 356-366; 412-417.	4115A	698	*x425	(e)	Oct., 1918	.....	.....	14	183	9	13	3	41	9	e10
C-49-F-12	San Gabriel Valley Water Co., Well 10-1921-B, Pasadena; 20 feet W. of Santa Anita Ave., 56 feet S. of Oswego St. S. well of two. Use: Domestic and irrigation. Casing: 16 inches. Gravel 137-159; 160-173; 192-206; 218-220; 231-238; 249-274; 277-284; 297-299; 322-368.	4105	720	*x399	(e)	Oct., 1918	.....	.....	23	134	12	24	7	25	11	e19

TABLE 4. WELLS IN UPPER SAN GABRIEL VALLEY—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^6$ at $25^\circ C$)	Boron ppm	Constituents (parts per million)							
									Percent sodium Na x 100 $Ca + Mg$ + Na	Bicarbonate radicle (HCO_3^-)	Chloride radicle (Cl ⁻)	Sulfate radicle (SO ₄ ²⁻)	Nitrate radicle (NO ₃ ⁻)	Magnesium (Mg)	Sodium (Na)	
C-56-F-12	City of Alhambra, Well 25 (new), Pasadena; 800 feet W. of Keween Drive, 25 feet N. of Canyon Drive. Use: Municipal. Casing: 18 inches in shallow pit in east end of pump house. Perforated 80-112; 119-157; 160-182.	4067	709	*x234	121 (*)	7/13/31 7/28/31	37.2	-----	38	162 154	18 24	7	33	10	35	
C-62-F-12	City of Alhambra, Well 0 Turbine, San Marino; 5 feet E. of Keween Drive, 150 feet S. of Canyon Drive. Use: Municipal. Casing: 18 inches. Perforated 108-114; 139-154; 204-224; 280-290.	4067C	667	*x300	(*)	7/20/31	-----	-----	140	16	b10	-----	-----	-----	-----	
C-65-F-12	City of Alhambra, Well 11A, San Marino; 25 feet N. of Mill Lane, 0.25 miles E. of old adobe mill, 300 feet E. of St. Albans Road, 20 feet W. of Virginia Ave. In west end of pump house. Use: Municipal. Casing: 11 inches. Perforated 43-47; 170-182; 187-195; 200-212; 212-251; 278-305; 323-332; 375-383.	4077	592	*x428	119 (*)	7/13/31 7/28/31	33.8	-----	48	159 161	13 15	14 b12	8	29	6	41
C-66-F-12	San Gabriel County Water District, Well 1, San Marino; 100 feet W. of Santa Anita Road; 500 feet S. of Robles Ave. Casing in east end of pump house. Use: Domestic and irrigation.	4107C	605	(*)	(*)	7/28/31	-----	-----	122	16	b12	-----	-----	-----	-----	
C-72a-F-12	W. L. Stewart, Well 1, San Marino; 500 feet E. of San Gabriel Blvd., 000 feet N. of Lombard Road. Use: Irrigation. Gravel 80-92; 112-124; 234-271; 326-338; 360-374; 434-544.	4106D	657	*577	(*)	Jan., 1920	-----	-----	a116	18	-----	-----	-----	-----	-----	
C-74-F-12	Thomas Frost, Pasadena; N. side of San Pasqual St., 700 feet E. of Santa Anita Ave. Use: Irrigation. Casing: 14 inches. Gravel 68-128; 202-208; 250-300; 350-400.	4106B	678	*404	(*)	Jan., 1920	-----	-----	a115	15	-----	-----	-----	-----	-----	
C-79-F-13	City of Pasadena, Chapman Well (formerly A. B. Chapman Estate, Well 1), E. of Pasadena; 200 feet S. of Foothill Blvd., 850 feet E. of Sierra Madre Villa Ave. at dome reservoir. Use: Municipal. Perforated 126-140; 194-226; 348-354; 370-400.	4125A	700	*x570	(*)	Oct., 1918	-----	-----	1	189	9	22	1	38	16	c1
C-87-F-13	City of Montrovian, Well 6, W. of Arcadia; 300 feet W. of Sierra Madre Ave. (W. line of Santa Anita Ranch), 100 feet N. of Mohawk St. West well. Use: Municipal. Casing: 26 inches. City of Sierra Madre, Well 2, Sierra Madre 0.45 miles W. of Santa Anita Ave., 300 feet N. of Control Ave. Use: Municipal. Casing: 26 inches. Gravel 260-285; 375-390.	4135A	625	*x476	279	9/ 2/31	34.0	0.30	18	189	7	12	2	37	12	15
C-89-F-13	City of Arcadia, Well 1, Arcadia; 700 feet W. of Santa Anita Ave., 100 feet N. of Orange Grove Ave. S.E. well in group. Use: Municipal. Casing: 22 inches. Gravel 183-210; 212-216; 221-223; 280-290; 296-300; 304-432; 434-464.	4164	602	*x404	107 (*)	7/2/31 7/24/31	37.7	-----	66	162 171	14 17	35 b25	6	12	7	54
C-101-F-13	City of Arcadia, Well 2a, Arcadia; 315 feet N. of Orange Grove Ave., 305 feet W. of Santa Anita Ave. Use: Municipal. Casing: 24 inches. Gravel 152-194; 226-246; 264-292; 380-406; 408-430; 432-450; 470-475; 484-502.	4164C	611	*x490	(*)	8/17/25 7/24/31	-----	-----	21	154 193	14 15	18 b23	35	1	c17	-----
C-104b-F-13	City of Arcadia, Well 4, Arcadia; 700 feet W. of Santa Anita Ave., 300 feet N. of Orange Grove Ave. N.E. well of group. Use: Municipal. Casing: 24 inches. Perforated 140-194; 220-490.	4164D	600	*x530	(*)	7/24/31	-----	-----	181	17	b50	-----	-----	-----	-----	
C-104-F-13	San Gabriel Valley Water Co., Well 125 (Richardson Well), Pasadena, 40 feet E. of Oak Knoll Ave., 60 feet N. of Huntington Garden Drive, extended. Second well in bottom of 60-foot pit, north pump house of two. Use: Domestic and irrigation. Casing: 12 inches. W.S. P. 219, No. 467, Pasadena Quadrangle.	4068A	649	x290	(*)	Oct., 1918	-----	-----	32	a189	21	41	14	42	13	c34
C-109 G-12	San Gabriel Valley Water Co., Walnut St. Plant, Well 1928, Pasadena; 200 feet S. of Walnut St., 100 feet E. of Huntington Drive. Use: Irrigation and municipal. Casing: 24 inches. Perforated 638-674.	4095	754	*x690	(*)	7/20/31	-----	-----	132	15	b10	-----	-----	-----	-----	
C-117a-F-12	San Gabriel Valley Water Co., Well 1917, San Marino; 25 feet E. of Canterbury Road, 35 feet S. of Lombardy Road. Use: Domestic and irrigation. Casing: 18 inches. Perforated 127-160; 280; 323-370.	4090A	670	*x385	(*)	7/20/31	-----	-----	122	17	b10	-----	-----	-----	-----	
C-122-F-12	San Gabriel Valley Water Co., Well 59, San Marino; 450 feet S. of Robles Ave., 200 feet W. of Santa Anita Ave., produced south. On east side of wash. Use: Domestic and irrigation, now used since 1927. Casing: 10 inches, in deep pit, in south end of pump house.	4107	620	x430	(*)	Oct., 1918	-----	-----	40	128	15	16	23	30	4	c29

TABLE 4. WELLS IN UPPER SAN GABRIEL VALLEY—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)									
							Specific electrical conductivity ($K \times 10^3$ at 25°C)	Boron ppm	Percent sodium $Na \times 100$ $\frac{Ca + Mg}{Na}$	Bicarbonate radicle (HCO_3^-)	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Magnesium (Mg)	Sodium (Na)	
C-122a-F-12	San Gabriel County Water District, Well 4, San Marino, 150 feet E. of Santa Anita Ave., 200 feet S. of Robles Ave., NW. well of group. Use: Domestic and irrigation. Casing: 24 inches.	4107B	623	x496	(v)	7/20/31	.....	.....	107	16	b10	.....	.....	.....
C-124-F-12	San Gabriel Valley Water Co., Putton Well 1923, Pasadena; 800 feet E. of Oak Grove Ave., 150 feet S. of Arden Road, 250 feet E. of Wilson Ave. Casting in N. end of pump house, 100 feet E. of old well. Use: Formerly domestic and irrigation. Casing: 18 inches. Gravel 134-142; 218-225; 326-330; 401-410; 173-179; 296-298; 363-369; 421-437.	4076B	726	*x501	(d)	7/20/31	.....	.....	151	18	b12	.....	.....	.....
C-124a-F-12	San Gabriel Valley Water Co., G. S. Patton—old well, Pasadena; 150 feet S. of Arden Road, 150 feet E. of Wilson Ave., 100 feet W. of C-124-F-12. Under booster pump house at SE. corner of reservoir. Use: Not used, formerly irrigation and domestic. Casing: 24 inches. Perforated 114-116; 138-140; 158-170; 180-200; 246-248; 338-352; 318-380; 388-430.	4076C	725	*x430	(e)	Oct., 1918	31	159	21	25	24	33	10	e26
C-127-F-11	City of Pasadena, Villa St. Well. Pasadena, at S. end of Villa St. reservoir, just NW. of intersection of Villa St. and Euclid Ave. Use: Municipal. Casing: 26 inches in 210-foot concrete pit. Perforated 212-364; 374-426; 450-488; 476-492; 518-523; 527-564; 595-612; 624-638; 729-741; 794-840; 874-879.	4054A	890	*x953	(d)	4/27/31	.....	.....	128	13	b16	.....	.....	.....
C-130-F-13	City of Sierra Madre, Well 1. Sierra Madre: 2,000 feet W. of Santa Anita Ave., 100 feet N. of Central Ave. Use: Municipal. Casting: 26 inches. Gravel 212-241; 283-355; 363-376; 425-459. W. S. P. 219, No. 258, Pasadena Quadrangle.	4163	674	*x459	(d)	7/15/31	.....	.....	161	15	b23	.....	.....	.....
C-131-F-12	San Gabriel Valley Water Co., Oak Knoll 2 (Well 1921a), Pasadena; 125 feet E. of Oak Knoll Ave., 50 feet N. of P. E. Ry. E. well of two. Use: Domestic and irrigation. Casing: 18 inches. Gravel 117-130; 153-159; 165-178; 208-279.	4066D	739	*x300	(d)	7/20/31	.....	.....	166	18	b10	.....	.....	.....
C-201a-G-12	City of Alhambra, Longden Ave., Well N. of San Gabriel; 100 feet E. of Rubio Wash, 325 feet N. of Longden Ave. Use: Municipal. Casing: 26 inches. Perforated 296-336; 346-389; 412-437; 440-480; 482-563; 680-731; 735-778.	4108	502	*x801	(d)	7/13/31 7/20/31	31.4	41	131 134	13 22	b25	18	25	10	32	
C-202-G-12	Alice H. Graves, San Marino, 175 feet NW. of Huntington Drive, 70 feet SW. of El Molino Ave., 10 feet S. of reservoir near E. End. Use: Municipal. City of Alhambra purchases water. Casing: 18 inches. Gravel 199-230; 278-308; 318-353; 401-413; 434-481.	4068	560	*x505	(d)	7/13/31 7/20/31	42.6	25	143 151	34 35	b15	21	42	16	26	
C-204-G-12	City of South Pasadena, Wilson Well 2, San Gabriel; 110 feet W. of Bradbury Drive, 275 feet S. of Adelma Drive. Use: Municipal. Casing: 26 inches. Perforated 222-280; 300-310; 330-430-440-525; 560-657; 663-663.	4099	479	*x720	(d)	7/13/31 8/31/31	39.6	27	174 195	16 21	b37	18	37	19	29	
C-206-G-12	City of Alhambra, Garfield Well 1. Alhambra; 90 feet W. of Garfield Ave., 25 feet S. of McLean St. Use: Municipal. Casting: 18 inches. Perforated 237-265; 275-325; 340-353; 375-471; 496.	4069	535	*x560	(d)	7/13/31 7/20/31	45.0	26	149 151	32 40	b44	27	43	16	29	
C-211a-H-12	City of Monterey Park, Emerson Plant, Well 2, Monterey Park; in center of Emerson Ave., 90 feet W. of McPherrin Ave. East well in pump house. Use: Municipal. Casing: 16 inches. Perforated 122-136; 138-140; 152-166.	2873A	396	*x302	(d)	7/13/31 7/20/31	71.1	57	232 254	77 90	b28	1	32	18	96	
C-211e-H-12	Midwick Country Club, South 6th St. Plant, Well 1, Alhambra; 30 feet W. of 6th St., 50 feet S. of Glendon Way; East well of two in underground pump house. Use: Irrigation. Casing: 16 inches. Perforated 150-182; 194-198.	2872A	412	*x412	(d)	8/13/31	42.5	37	180	30	18	16	33	16	39	
C-211j-H-12	City of Monterey Park, Garvey Ave. Plant 2, East of Monterey Park, 200 feet W. of Delta St., 230 feet S. of Garvey Ave. W. of Plant 1. Use: Municipal. Casing: 16 inches. Gravel 209-249; 388-422.	2913	262	*x450	(d)	7/20/31	.....	.....	195	38	b12	.....	.....	.....
C-213b-H-13	Potrero Heights Water Co., Well 2, S. of San Gabriel; 0.1 miles S. of Rush Ave., 403 feet W. of Walnut Grove Ave. Use: Not used. Gravel 94-97; 176-197; 286-309; 407-420; 491-513.	2915B	231	*x518	(e)	Oct., 1918	46	238	42	17	0	40	13	59
C-213c-H-12	City of Monterey Park, Garvey Ave. Plant 1, E. of Monterey Park; 50 feet W. of Delta St., 230 feet S. of Garvey Ave. E. of Plant 2. Use: Municipal. Casing: 16 inches. Gravel 209-249; 388-422.	2913A	262	*x450	(d)	7/13/31 7/20/31	47.6	26	189 180	34 28	b13	21	46	18	30	

TABLE 4. WELLS IN UPPER SAN GABRIEL VALLEY—Continued

Well number	Location and description	Location number	Eleva-tion of ground	Labora-tory number	Date	Specific electrical conductance ($\text{K} \times 10^{-4}$ at 25°C)	Percent sodium $\frac{\text{Na} \times 100}{\text{Ca} + \text{Mg}}$ (HCO_3)	Constituents (parts per million)								
								Boron ppm	Boron ppm	Bear-ium $\frac{\text{Na} \times 100}{\text{Ca} + \text{Mg}}$ (HCO_3)	Chlo-ride radicle (Cl)	Sul-phate radicle (SO_4)	Nitrate radicle (NO_3)	Cal-cium (Ca)	Magnesium (Mg)	Sodium (Na)
C-214-G-13	Mr. Longly, E. of Temple; 20 feet W. of El Monte Ave.; 20 feet S. of Palm Drive. Deep pit. Use: Irrigation. Gravel 141-161; 169-177; 228-232; 385-387; 408-409; 451-455.	4168	369	*x477	278	9/ 2/31	42.6	0.22	20	210	14	14	13	45	18	21
C-233L-G13	Driftwood Dairy, N. of El Monte; 170 feet S. of Lower Azusa Road, 600 feet W. of Rio Hondo Bridge; 350 feet E. of El Monte Ave. Use: Domestic and irrigation. Casing: 10 inches.	2960A	302	x142	274	9/ 2/31	39.4	0.20	28	192	13	12	13	42	7	24
C-233e-H-13	E. Van Inselhoff, S. of El Monte; 183 feet W. of Hoy St., 255 feet N. of Harvey Road. Use: Irrigation. Casing: 7 inches. Perforated 65-70.	2953F	266	x73	280	9/ 2/31	50.6	0.02	13	247	16	30	11	66	19	17
C-238e-H-13	A. Allnis, S. of El Monte; 55 feet S. of Durfee Rond. 0.46 miles SW, Slack Ave. Use: Domestic. Casing: 7 inches. Perforated 40-46.	2956D	230	*x50	271	9/ 2/31	50.7	0.03	11	253	11	35	13	72	17	14
C-243-F-14	Bardiley Water Ditch Co., S. of Monrovia; 20 feet W. of Mountain Ave., 600 feet S. of Euclid Ave. Use: Irrigation. Gravel 89-100; 163-183; 229-237; 273-333; 348-352.	4217	413	*x352	247	8/21/31	43.0	-----	14	*241	9	21	4	59	17	17
C-243b-F-14	City of Monrovia, Lower Norumbega Well, Monrovia; 150 feet NE. of Norumbega Drive crossing over Sawpit Creek. Use: Municipal. Casing: 6 x 6 wooden pit to tunnel under creek.	4203	785	x80	(d)	7/15/31	-----	-----	-----	332	27	b35	-----	-----	-----	-----
C-243c-E-14	City of Monrovia, Upper Norumbega Well, Monrovia; pump house on E. bank of Sawpit Creek, 0.3 miles NW from Norumbega Drive crossing of Sawpit Creek. Casing: 8' x 8' pit to tunnel under creek.	4203A	850	x70	(d)	7/15/31	-----	-----	-----	312	23	b33	-----	-----	-----	-----
C-245-G-14	City of Monrovia, San Gabriel Well 1, S. of Monrovia; 400 feet E. of Peck Rond, 200 feet N. of road running along ranch line about 0.5 miles N. of Live Oak Ave., 90 feet N. of C-245a-G-14. Use: Municipal. Casing: 26 inches. Perforated 73-132; 136-180; 182-214; 217-350; 374-420.	4198	368	*x440	(f)	8/ 3/25	-----	-----	6	187	8	-----	-----	40	12	e7
C-245a-G-14	City of Monrovia, San Gabriel Well 2, S. of Monrovia; 400 feet E. of Peck Rond, 110 feet N. of road running along ranch line, 0.5 miles N. of Live Oak Ave., 90 feet S. of C-245-C-14. Use: Municipal. Casing: 26 inches. Gravel 74-132; 135-177; 183-200; 220-246; 265-300; 310-350; 379-430.	4198E	368	*x470	281	9/ 2/31	36.7	0.01	16	207	7	10	9	44	16	15
C-255b-H-14	Mountain View School, SE. of El Monte; 320 feet SE. of Mountain View Road, 9/2 feet SW. of Valley Blvd. Use: Domestic and irrigation. Casing: 7 inches. Gravel 8-15; 37-41; 47-49; 81-95.	2973L	283	*95	277	9/ 2/31	40.4	0.02	13	223	4	24	6	56	14	14
C-267-H-14	P. Briano, SE. of El Monte; 250 feet NW of Workman Mill Road, 0.83 miles SW. of Central Ave. Use: Domestic and irrigation. Casing: 7 inches. Gravel 29-76; 87-103.	2986	319	*x103	275	9/ 2/31	59.7	0.07	48	214	36	78	3	44	13	71
C-268L-I-13	Pico County Water District, S. of El Monte; 0.56 miles E. of Durfee Road, 40 feet S. of Syphon Road, in Whittier Narrows. Use: Irrigation. Casing: 8 inches. Perforated 48-73; 88-97.	2947F	212	*101	428	10/13/31	34.8	0.05	12	192	4	24	2	48	12	10
C-280-F-15	Duarre Mutual Water Co., Las Lomas Well, E. of Monrovia; 100 feet S. of P.E. Ry.; 100 feet W. of Las Lomas Ave. at Las Lomas Station. Use: Irrigation. Casing: 26 inches. Perforated 90-270.	4255E	591	*x297	246	8/21/31	41.9	-----	15	*225	9	28	4	56	16	17
C-297b-G-15	South Baldwin Park, Baldwin Park; 125 feet NE. of Merced Ave., 350 feet NW. of Covina Blvd. Use: Irrigation.	3022	350	x160	250	8/21/31	49.4	-----	11	241	16	15	29	68	16	13
C-304d-H-15	La Puebla Water Co., Well 2, S. of Baldwin Park; 0.40 miles NE. of Merced Ave., 37 feet NW. of Willow Ave. Use: Irrigation. Perforated 81-113; 135-153; 163-219; 237-273.	3052	364	*273	253	8/21/31	42.1	-----	18	210	13	19	18	50	16	19
C-311e-H-15	Anthony Fickeworth, S. of Baldwin Park; 0.0 feet S. of Fairgrove Ave., 180 feet E. of Glendale Ave. Use: Domestic. Casing: 7 inches. Perforated 138-141; 180-193.	3055L	334	*200	254	8/21/31	62.3	-----	31	217	30	94	9	62	18	47
C-325e-F-16	Glendora Consolidated Mutual Irrigating Co., Azusa Plant, North Well, N. of Azusa; 2,700 feet N., 78' feet of intersection of Sierra Minde Ave. and San Gabriel Road. North well of two.	4285F	675	-----	210	8/12/31	35.0	-----	13	192	4	24	1	48	14	13
C-335u-G-16	Glendora Consolidated Mutual Irrigating Co., Vosberg Plant, Azusa, 0.7 miles W. of Azusa Ave.; 450 feet S. of First St. Use: Irrigation. Casing: 26 inches. Gravel 252-500.	4287A	531	*x500	215	8/12/31	47.6	-----	13	217	13	26	21	65	14	16

TABLE 4. WELLS IN UPRIVER SAN GABRIEL VALLEY. Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^3$ at 25°C)	Constituents (parts per million)							
								Boron ppm	Percent sodium $Na \times 10^3$ Ca + Mg + Na	Bicarbonate radicle (HCO_3^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)			
C-336-G-16	Glendora Independent Water Co., Well 2, S. of Azusa; 0.88 miles E. of Franklin Ave., 350 feet S. of Bonita Ave. (Arrow Highway). Use: Domestic and irrigation. Casing: 20 inches, in S. end of pump house. Gravel 103-283; 29-305; 308-400.	4289	471	*x411	245	8/21/31	48.7	.....	18	232	9	27	58	18	23
C-338-G-16	City of Covina, Well 1, Covina; 450 feet S. of Covina Blvd., 400 feet W. of 4th St., in Covina City Park. Use: Municipal plunge and Park. Casing: 16 inches. Perforated 387-390; 417-451; 480-405.	3101	583	*x548	(d) 360	7/22/31 9/26/31	40.3	0.08	23	166 171	17 14	b10 22	39	16	22
C-343-H-16	A. R. Evans, S. of Covina; 50 feet W. of Hollenbeck Ave., 500 feet N. of Arroyo Dr. S. well et two. Use: Irrigation and domestic. Casing: 16 inches. Perforated 222-234; 383-386; 480-497.	3102	487	*x505	(e)	Aug., 1918	.....	.....	41	226	23	54	11	30	9
C-348-H-16	Valencia Water Co., Well 2, SW. of Covina; 20 feet E. of Azusa Ave., 480 feet N. of Service St. 260 feet N. of bridge across Walnut Creek on Azusa Ave. Use: Irrigation. Casing: 16 inches. Perforated 157-140; 226-231; 314-319; 347-350; 381-401; 464-468.	3063	441	*x500	257	8/21/31	55.2	.....	30	229	20	71	7	53	20
C-353a-H-16	Valencia Heights Water Co., Well 1, S. of Covina; 230 feet S. Walnut Creek Wash, 0.13 miles E. of Citrus Ave. Use: Irrigation and domestic. Casing: 16 inches. Gravel 153-165; 167-173; 209-225; 311-325.	3113A	470	*475	361	9/26/31	46.8	0.08	26	204	12	42	9	46	18
C-357a-I-16	F. H. Anur, Well 1, SE. of Baldwin Park; 280 feet W. of Pass and Covina Rond. 0.39 miles S. of Amar Road. Use: Domestic. Casing: 12 inches.	3086	432	*430	256	8/21/31	82.5	.....	23	204	53	128	43	90	25
C-364-I-15	Kwis Water Co., Well 2, S. of Puente; 100 feet S. of Gale Ave., 0.25 miles W. from Hacienda Blvd. on west bank of small drain. Use: Irrigation. Casing: 14 inches, in shallow pit in S. end of pump house.	3038	330	x300	(e)	Oct., 1918	.....	.....	34	354	66	166	0	91	37
C-365-H-15	J. C. Pearson, Well 1, SE. of Baldwin Park; 35 feet S. of Merced Ave., 2,350 feet E. of Glendora Ave. Use: Irrigation and domestic. Casing: 12 inches. Perforated 153-143; 239-245.	3064A	383	x300	255	8/21/31	49.0	.....	28	204	20	48	11	49	18
C-380b-H-15	J. P. Calegan, SW. of Baldwin Park; 47.5 feet NW. of Sunset Ave., 42 feet SW. of Temple Ave. Use: Irrigation. Casing: 7 inches. Perforated 40-50.	3035L	310	*55	251	8/21/31	82.9	.....	20	a354	48	57	43	98	28
C-393-G-15	S. M. Walker, Well 3, N. of Baldwin Park; 50 feet W. of N. Main Ave., 260 feet S. of Bonita Ave. (Arrow Highway). Use: Irrigation. Casing: 20 inches. Gravel 117-223; 225-440.	4290C	425	*x446	248	8/21/31	34.7	.....	11	a198	4	17	9	49	13
C-399-G-16	City of Covina, Well 2, S. of Covina; 700 feet S. of Cypress Ave., 30 feet W. of Grand Ave. Use: Municipal. Casing: 20 inches. Perforated 335-434.	3120	622	*x575	(d)	7/22/31	.....	.....	166	20	b17	.....	.....	.....	.....
C-404-F-17	City of Glendora, Well 2, Glendora; 600 feet N. of Sierra Madre Ave., 150 feet W. of Loraine Ave. Use: Municipal. Casing: 24 inches. Perforated 408-520; 567-582; 602-635; 660-682.	4355A	968	*x693	(d) 287	7/22/31 9/10/31	58.6	0.09	19	302	18	v30	2	66	26
C-405-F-17	City of Glendora, Well 1, Glendora; 25 feet N. of Sierra Madre Ave., 200 feet W. of Loraine Ave. Use: Municipal. Casing: 20 inches. Gravel 398-500; 508-514.	4355	950	*x625	(d)	7/22/31	.....	.....	.....	266	17	b20	.....	.....	.....
C-406-F-17	Glendora Consolidated Mutual Irrigating Co., Mutual Well 7, Glendora; 1,200 feet E. of Live Oak Ave., 350 feet N. of Lendora Ave. on W. bank of Little Dalton Creek. Use: Irrigation. Casing: 20 inches. Perforated 300-520.	4345A	945	*x520	(e)	Oct., 1918	.....	.....	20	a274	18	25	7	58	16
C-414-F-17	Glendora Consolidated Mutual Irrigating Co., Irrigation Well 7, Glendora; east well of two on W. bank of Little Dalton Creek at end of Whitecomb Ave., 350 feet E. of Live Oak Ave. Use: Irrigation.	4356A	870	x	(e)	Oct., 1918	.....	.....	34	262	15	26	6	56	5
C-437a-G-17	Columbia Land and Water Co., Well 6, S. of Glendora; 100 feet E. of Sunflower Ave., 35 feet N. of Gladstone Ave. Use: Irrigation. Casing: 16 inches. Gravel 157-181; 194-209; 220-293.	4358A	783	*x414	249	8/22/31	47.5	.....	19	210	13	44	18	50	21



TABLE 4. WELLS IN LIPPS SAN GABRIEL VALLEY. *Continued*

Well number	Location and description	Elevation of ground	Location number	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance ($K \times 10^3$ at $25^\circ C$)	Boron ppm	Constituents (parts per million)							
									Percent sodium	Bicarbonate $\text{Na} \times 100$ mg $\text{Ca} + \text{Mg}$ + Na	Sulfate radicle (SO ₄)	Chloride radicle (Cl)	Nitrate radicle (NO ₃)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-446-G-17	San Dimas Water Co., Lone Hill Well 2, W. of San Dimas; 350 feet S. of Bouita Ave.; 30 feet E. of Lone Hill St. in bottom of ravine. Use: Irrigation. Perforated 224-251; 345-356. U. S. D. A. analysis on 3/22/31 is duplicate of D. W. R. Lab. No. 235.	4379	835	*472	235 (*)	8/22/31 8/22/31	37.6 38.7	0.13	3.1 3.5	*174 201	9 9	30 30	8 9	37 38	13 11	31 35
C-446e-G-18	San Dimas Water Co., San Dimas; 60 feet S. of A. T. & S. F. Ry.; 600 feet W. of Walnut Ave. Use: Irrigation. Casing: 16 inches. Perforated 287-318.	4399	920	*318	99	6/29/31	41.9	0.04	37	165	17	14	16	32	14	37
C-464-F-19	R. S. Brydon, Well 1, N. of La Verne; 2,200 feet N. from east end of Wheeler-La Verne Road, 800 feet W. of private road running N. from E. end of Wheeler-La Verne Road. Upper well of two. Use: Irrigation. Casing: 18 inches.	4435	1,650	254	(*)	Nov. 1918	.....	.....	3.4	*271	14	22	7	57	9	*42
C-464h-F-19	R. S. Brydon, N. of La Verne; 3,500 feet E. of N. end of Wheeler-La Verne Road, 260 feet N. of E. and W. road, 50 feet W. of private road road N. Use: Irrigation on.	4445	1,502	*120	441	10/16/31	45.4	0.04	18	259	9	6	6	54	19	21
C-476e-F-18	F. H. Paine, N. of La Verne; 300 feet northerly along Wheeler-La Verne Road from corner (second turn N. of Base Line Road), thence 150 feet E. to well. Use: Irrigation and domestic. Casing: 12 inches. W. S. P. 219, No. 218, Pomona Quadrangle.	4426C	1,315	*148	439	10/16/31	88.3	Tr.	14	204	41	155	66	106	35	29
C-476f-F-18	B. L. Reynolds, N. of La Verne; 300 feet W. of Wheeler-La Verne Road, 4,100 feet N. of Base Line Road, on S. side of short east-west road. Use: Domestic and irrigation. Gravel 127-135; 150-158.	4426A	1,280	*370	(*)	Oct. 1918	.....	.....	6	183	14	21	13	50	16	*6
C-482-G-18	Glendora Consolidated Mutual Irrigating Co., Mutual Well 4, NW. of La Verne; 60 feet S. of Old Foothill Blvd., 350 feet W. of Artesia Ave. Use: Irrigation.	4407C	1,050	x500	(*)	Oct. 1918 8/12/31	48.8	.....	23 21	*249 253	18 11	39 36	10 4	54 52	18 23	*25 28
C-501a-G-18	San Dimas Water Co., Artesia Plant, San Dimas; 100 feet S. of Juanita Ave., 50 feet E. of Artesia Ave. Use: Irrigation. Casing: 18 inches.	4408	1,017	*x571	438	10/16/31	41.9	0.01	32	204	14	21	8	38	15	33
C-546a-G-18	Base Line Water Co., Well 2 (formerly F. H. Harrold and B. A. Woodford). La Verne; 170 feet S. of Foothill Blvd., 100 feet W. of Wheeler Road. Use: Irrigation. Casing: 18 inches. Perforated 317-389; 403-423; 479-492.	4428B	1,116	*552	(*)	Oct. 1918	.....	.....	6	211	19	22	6	49	22	*6
C-676-I-18	Phillips Estate, W. of Pomona; 110 feet S. of U. P. R. R., 220 feet N. of 2d Ave., 4,700 feet W. of White Ave., 40 feet E. of concrete reservoir. Use: Irrigation. U. S. D. A. analysis on 8/22/31 is duplicate of D. W. R. Lab. No. 471.	3224	818	x	471 (*)	10/22/31 10/22/31	39.0 38.3	0.08 0.06	16 18	192 204	9 9	20 19	11 15	51 52	12 11	15 17
C-700c-J-16	Caleardi & Mareno, E. of Puente; 330 feet N. of Valley Blvd., 1.05 miles E. of Pass and Covina Road. Use: Irrigation and domestic. Casing: 12 inches. Gravel 12-28; 88-90; 104-106; 158-160. U. S. D. A. analysis on 8/22/31 is duplicate of D. W. R. Lab. No. 234.	3099B	405	*201	234 (*)	8/21/31 8/21/31	117.7 118.0	0.19	35 37	*326 345	80 75	243 239	16 18	101 98	44 40	109 110
C-704j-H-18	W. K. Kellogg, Well 2, W. of Pomona; 20 feet N. of San Jose Wash, 4,000 feet NE. of Collins St., 0.5 miles NW. of Valley Blvd. Use: Domestic. Gravel 68-80; 83-99; 192-195; 215-218.	3194	731	*231	362	9/26/31	54.3	0.09	21	232	18	69	4	61	18	28
C-705d-I-17	Reuther-Graham Feed Yards, SW. of Shadrach; 60 feet E. of ranch road to Reuther-Graham Feed Yards, 145 feet S. of S. P. R. R., 4,300 feet NE. of Brea Canyon Road. Use: Domestic and stock. Gravel 142-60; 65-85.	3177A	613	*89	364	9/26/31	68.7	0.31	17	259	23	110	9	34	22	29
C-705e-I-17	Currier Ranch, SW. of Spadra; 200 feet S. of S. P. R. R., 1,400 feet SE. of Valley Blvd., 3,300 feet NE. of Brea Canyon Road. Use: Irrigation.	3167B	604	.....	363	9/26/31	66.5	0.37	.....	256	23	.....	.....	.....	.....	.....
C-710b-I-15	Victoria Mutual Water Co., Well 3, S. of Puente; 0.20 miles W. of Puente Road, 90 feet N. of U. P. R. R. Use: Irrigation. Casing: 16 inches. Gravel 28-82; 155-185; 268-270.	3048A	327	*500	242	8/21/31	103.9	.....	29	387	50	175	18	103	40	78

* Log in files of Division of Water Resources.

x Water levels in files of Division of Water Resources.

^a Includes small equivalent quantity of Carbonate (CO₃).^b Sulphate (SO₄) determined by turbidity method.^c Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.^d Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.^e Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.^f Analysis by Los Angeles Testing Laboratory, Los Angeles.^g Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California. (14)

TABLE 5. SURFACE WATERS IN UPPER SAN GABRIEL VALLEY

Number	Location and description	Constituents (parts per million)												
		Location number	Elevation of ground	Discharge in second-feet	Laboratory number	Date	Specific electrical conductivity ($K_{1.0}^{\circ}$ at 25°C)	Boron ppm	Percent sodium	Per cent borate ($\frac{\text{Na} \times 100}{\text{Ca} + \text{Mg}}$)	Chloride radicle (HCO_3^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca)
55127-D-11	Arroyo Seco, NW of Pasadena. Sampled at U. S. G. S. gaging station near south line of Sec. 30, T.2N., R.12W., S. B. & M. (unsurveyed). 1.5 miles above mouth of Millard Canyon and opposite U. S. Forest Service warehouse. Discharge from U. S. G. S. Note: Discharge less than 0.1 second feet on days for which no discharge is given.	S5127	1,450	0.2 3.3 2.8 39	109 598 648 9	7/2/31 12/14/31 1/10/32 3/14/32 4/15/32 5/15/32 6/15/32 0.1 0.1 0.2 0.2 0.4 50 10	45.2 44.8 41.7 26.1 37.2 40.2 43.5 47.0 47.0 10/15/32 11/15/32 12/15/32 13/16/33 14/16/33 8/15/32 8/15/32 10/15/32 11/15/32 12/15/32 13/16/33 14/16/33 12/15/32 13/16/33 14/16/33 15/16/32 16/17/32 17/18/32 18/19/32 19/20/32 20/21/32 21/22/32 22/23/32 23/24/32 24/25/32 25/26/32 26/27/32 27/28/32 28/29/32 29/30/32 30/31/32 31/32/32 32/33/32 33/34/32 34/35/32 35/36/32 36/37/32 37/38/32 38/39/32 39/40/32 40/41/32 41/42/32 42/43/32 43/44/32 44/45/32 45/46/32 46/47/32 47/48/32 48/49/32 49/50/32 50/51/32 51/52/32 52/53/32 53/54/32 54/55/32 55/56/32 56/57/32 57/58/32 58/59/32 59/60/32 60/61/32 61/62/32 62/63/32 63/64/32 64/65/32 65/66/32 66/67/32 67/68/32 68/69/32 69/70/32 70/71/32 71/72/32 72/73/32 73/74/32 74/75/32 75/76/32 76/77/32 77/78/32 78/79/32 79/80/32 80/81/32 81/82/32 82/83/32 83/84/32 84/85/32 85/86/32 86/87/32 87/88/32 88/89/32 89/90/32 90/91/32 91/92/32 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TABLE 5. SURFACE WATERS IN UPPER SAN GABRIEL VALLEY—Continued

TABLE 5. SURFACE WATERS IN UPPER SAN GABRIEL VALLEY—Continued

Number	Location and description	Location number	Elevation of ground	Discharge in second-feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^4$ at $25^\circ C$)	Boron ppm	Percent sodium	Constituents (parts per million)						
										Boronate $Ca + Mg + Na$	Bicarbonate $Na \times 100$	Chloride Cl^-	Sulfate SO_4^{2-}	Nitrate NO_3^-		
S2947-1-13	San Gabriel River, SW of El Monte in Whittier Narrows. Sampled from Cite Ditch at end of Syphon Road, 0.7 miles SE of Durfee Road. Intake of ditch is 1,500 feet upstream. Use: Irrigation. Discharge is combined discharge of Cite Ditch, Staudifer Ditch and San Gabriel River below Standifer Ditch from L. A. C. F. C. D.	S2947	205	20	45	6/13/31	46.0	-----	36	*262	11	27	4	36	18	
					13	7/13/31	47.3	-----	18	*250	9	31	6	63	15	
					14	8/13/31	44.8	-----	11	*247	9	27	2	66	17	
					15	9/15/31	35.8	0.00	11	192	2	21	1	48	13	
					17	4/24 10/13/31	40.1	0.16	0	253	9	29	2	66	16	
					25	12/14/31	47.6	0.16	12	247	11	38	2	69	16	
					27	6/47 1/20/32	45.1	0.16	-----	241	9	11	-----	16	15	
					60	7/23	47.9	0.08	-----	247	11	11	-----	11	11	
					30	9/05 3/14/32	36.0	0.15	-----	201	4	20	5	20	40	
					30+	3/14/32	36.0	0.15	-----	204	8	20	1	62	13	
					29	9/19 4/19/32	37.0	0.14	8	204	5	20	5	62	13	
					22	4/16/32	36.0	0.03	-----	192	5	39	1	72	16	
					23	7/20/32	50.4	0.06	11	265	7	20	2	74	16	
					19	13/69 9/12/32	50.7	0.30	9	*208	7	20	2	74	16	
					25	14/76 10/11/32	52.3	0.12	-----	265	12	12	-----	12	12	
					24	15/41 11/19/32	37.0	0.10	-----	198	4	11	-----	11	11	
					30+	15/76 12/10/32	55.8	0.10	7	250	7	20	5	51	11	
					26	10/83 1/13/33	50.8	0.08	-----	*244	9	11	1	78	18	
					90+	1/20/33	34.2	0.08	-----	152	7	7	-----	-----	10	
					31	18/13 2/28/33	50.2	0.09	-----	241	4	4	-----	-----	-----	
S2967-1-13	San Jose Creek, S. of El Monte. Sampled at L. A. C. F. C. D. gauge station 48, 200 feet upstream from Warkman Mill Road Bridge. Discharge from L. A. C. F. C. D.	S2967	225	0.30	272	9/2/31	83.1	0.15	29	366	32	114	0	86	62	
					0.34	425	10/13/31	77.8	0.15	28	351	23	104	Tr	82	55
					0.17	563	12/14/31	82.2	0.11	29	271	41	152	0	78	57
					0.00	652	1/20/32	97.6	0.20	-----	357	48	30	-----	-----	-----
					5.10	724	2/15/32	54.0	0.18	-----	168	30	30	-----	-----	-----
					0.25	806	3/14/32	94.8	0.13	-----	320	45	32	-----	-----	-----
					0.28	920	4/19/32	91.7	0.16	29	363	163	0	101	29	68
					0.15	1046	6/16/32	98.3	0.16	-----	324	48	43	174	0	11
					0.1	1477	10/11/32	100.0	0.20	29	372	43	174	0	97	11
					0.2	1577	12/10/32	101.0	0.19	-----	375	44	194	0	99	11
					6.8	1702	1/20/33	40.4	0.12	-----	137	20	20	-----	-----	-----
					0.2	2/28/33	89.4	0.14	-----	327	36	36	-----	-----	-----	
					18/14	18/14	-----	-----	-----	-----	-----	-----	-----	-----	-----	
S3190-G-18	Los Angeles County Flood Control District, Paddingstone Reservoir, S. of Sun Dimas. Sampled 200 feet east of reservoir from Dam 1. Use: Storage for irrigation.	S3190	950	-----	-----	877	4/15/32	22.6	0.05	27	98	7	22	4	23	7
					-----	878	4/15/32	22.1	0.04	-----	98	6	7	-----	-----	15
					-----	928	5/2/32	32.9	0.08	-----	104	6	25	Tr.	26	11
					-----	1000	6/10/32	24.8	0.03	22	113	6	25	Tr.	26	11
					-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	15

^a Includes small equivalent quantity of Carbonate (CO_3^{2-}).

TABLE 6. WELLS AND SURFACE WATERS IN SAN TIMOTEZO AREA

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^3$ at 25°C)	Percent sodium	Constituents (parts per million)								
									Boron phen	Bicarbonate radicle (HCO_3^-)	Nitrate radicle (NO_3^-)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)			
E-103-H-28	Dr. J. J. Weir, Loma Linda; 200 feet S. of Prospect Ave., 300 feet W. of Benton Ave. Use: Domestic and irrigation. Perforated 20-260.	18044B	1,150	260	1219	8/ 4/32	91.2	0.29	65	348	67	46	41	16	145		
E-104-H-28	Clifford T. Norwood, Bryn Mawr; 20 feet W. of Mountain Ave., extended, 30 feet S. of Bryn Mawr Ave., extended, 0.62 miles S. of Barton Ave. Use: Irrigation. Casing: 14 inches. Perfornated 200-633; 677-693; 721-761.	18056	1,312	*795	1241	8/ 5/32	57.5	0.07	77	165	67	42	2	17	6	100	
E-107k-H-29	Bryn Mawr Water Co., Well 1, Bryn Mawr; 75 feet S. of S. P. R. R., 600 feet W. of California St. Use: Irrigation. Casing: 18 inches. Perfornated 200-348; 354-398.	18075D	1,215	*554	1221	8/ 5/32	78.5	0.01	43	336	39	60	27	58	24	83	
E-112g-1-29	H. L. Hubbard, SW. of Redlands; 300 feet S.E. of San Timoteo Canyon Road, 700 feet E. and 330 feet N. of SW. corner of Sec. 4, T. 2S., R. 3W., S. B. B. & M. Use: Irrigation. Casing: 14 inches.	18097D	1,430	(x)	1225	8/ 5/32	81.4	0.04	49	403	50	38	2	48	27	102	
E-112h-1-29	Chas. H. Cloke, SW. of Redlands; 75 feet S. of S. P. R. R., 800 feet W. of Redlands City limits, 1,000 feet N.W. of Redlands S. P. R.R. depot, in San Timoteo Canyon. Use: Irrigation. Casing: 14 inches. Perfornated 125-475; 322-549.	18084A	1,295	*568	1223	8/ 5/32	73.0	0.04	46	327	41	53	7	49	22	84	
E-120f-H-30	City of Redlands, Well 5 (former Redlands Water Co., Well 2). Redlands; 300 feet S.E. of Crescent Ave., 400 feet N.E. of Roosevelt St. (State Highway), 500 feet N.E. of reservoir. Use: Municipal. Casing: 10 inches. Gravel 110-150; 164-200; 206-220; 284-292; 344-360; 390-400; 406-410; 420-424; 450-452; 490-506.	18135D	1,532	*x510	(d)	4/15/31	- - -	- - -	- - -	220	16	b25	- - -	- - -	- - -	- - -	
E-120j-H-30	City of Redlands, Well 11, Redlands; 800 feet S.E. of Crescent Ave., 300 feet N.E. of Roosevelt St. (State Highway). NW well. Use: Municipal. Casing: 18 inches. Gravel 101-131; 152-174; 190-194; 291-298; 370-390; 498-514.	18135H	1,565	*x687	(d)	4/15/31	8/ 4/32	40.2	0.05	43	195	20	180	20	38	10	41
E-120k-H-30	City of Redlands, Well 12, Redlands; 1,000 feet S.E. of Crescent Ave., 50 feet N.E. of Roosevelt St. (State Highway). E. of reservoir. Use: Municipal. Casing: 20 inches. Gravel 98-124; 243-266; 302-330.	18135f	1,568	*x347	(d)	4/15/31	8/ 4/32	44.1	0.01	32	217	18	195	20	24	9	34
E-120m-H-30	City of Redlands, Well 16, Redlands; 0.3 miles S.E. of Crescent Ave., 50 feet N.E. of Roosevelt St. (State Highway). E. of reservoir. Use: Municipal. Casing: 20 inches. Gravel 170-206; 238-280; 320-326; 346-352.	18135K	1,572	*x414	(d)	4/15/31	- - -	- - -	- - -	195	18	b27	- - -	- - -	- - -	- - -	
E-122b-1-30	Frank Mulvihill, S. of Redlands; 15 feet SW. of San Timoteo Road, 170 feet N.W. of Live Oak Canyon Read. Use: Domestic. Casing: 7 inches. W. S. P. 142, No. 36, Redlands Quadrangle.	18139A	1,553	x 96	1231	8/ 5/32	78.0	0.04	44	348	43	76	1	54	26	87	
E-130-1-31	Lower Yucaipa Water Co., S.E. of Redlands; 500 feet N. of Live Oak Canyon Road, 1.3 miles S.E. of State Highway, 30 feet W. of center line of See. 8, T. 2S., R. 2W., S. B. & M. Use: Irrigation. Casing: 12 inches.	18188	1,909	x210	1196	7/21/32	54.4	0.06	33	290	21	20	2	53	17	46	
E-136b-1-31	Daniel Webster, SE. of Redlands; 0.4 miles W. of E. line of See. 7, T. 2S., R. 2W., S. B. & M. 0.28 miles W. of Live Oak Canyon Road, bridge 400 feet S. of Live Oak Canyon Road and 100 feet S. of S. bank of creek. Use: Irrigation. Casing: 12 inches.	18179A	1,553	244	1195	7/21/31	53.7	0.01	37	268	27	25	1	48	16	49	
E-132h-H-32	South Mountain Water Co., Well 3, W. of Yucaipa; 75 feet N. of Yucaipa Blvd., 300 feet E. of 12th St. Use: Irrigation. Casing: 20 inches. Perfornated 126-610.	18216D	2,155	*x648	1197	7/21/32	46.2	0.03	21	244	13	24	8	57	16	25	
E-133-f-31	Western Heights Water Co., Well 5, W. of Yucaipa; 60 feet S. of Ave. E. 0.1 miles W. of 12th St. Use: Irrigation. Casing: 10 inches.	18217	2,097	x788	1238	8/ 5/32	42.8	0.01	17	235	9	18	4	57	13	19	
E-133a-1-31	Western Heights Water Co., Well 4, W. of Yucaipa; 40 feet S. of Ave. E. 450 feet E. of 15th St. Use: Irrigation. Casing: 12 inches. Gravel 105-110; 320-326; 382-385; 460-530.	18207	2,074	*x537	1237	8/ 5/32	44.1	0.01	21	238	9	25	4	57	13	24	
E-135b-1-32	J. B. Hundley, Yucaipa; 500 feet S. of Yucaipa Blvd., 15 feet W. of 7th St. Use: Irrigation. Casing: 12 inches.	18236	2,407	x345	1200	7/21/32	41.1	0.03	18	223	11	17	6	52	14	18	

TABLE 6. WELLS AND SURFACE WATERS IN SAN TIMOTEZO AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)										
							Boron ppm	Specific electrical conductance ($K \times 10^4$ at $25^\circ C$)	Bicarbonate + Na ($Mg + Ca$)	Chloride + Na (Cl)	Nitrate + Na (NO_3)	Sulfate + Na (SO_4)					
E-135e-I-32	Crafton-Macy Water Co., W. of Yucaipa; 15 feet N. of Yucaipa Blvd.; 300 feet W. of Dakota Place. Use: Irrigation. Casing: 22 inches.	18226B	2,255	450	*x403	1198	7/21/32	42.4	0.03	10	229	9	16	6	54	14	17
I-136d-I-32	Redlands-Yucaipa Land Co., Dairy Ranch Well. SW. of Yucaipa; 200 feet N. of Riverside County line; 0.8 miles W. of State Highway, in S. 1/4, Sec. 10, T.2S., R.2W., S. B., & M. Use: Irrigation. Casing: 20 inches. Perforated 140-378.	18229C	2,247			1199	7/21/31	50.9	0.03	29	278	20	22	3	53	17	38
F-136b-I-32	South Mesa Water Co., Well 11. SW. of Yucaipa; 150 feet W. of State Highway, 10 feet S. of County Line Road. Use: Irrigation. Casing: 16 inches. Perforated 205-363.	18239A	2,392		*x443	1201	7/21/32	47.4	0.07	32	226	16	28	6	46	15	39
E-138-I-32	Yucaipa Water Co., No. 1, Well 12. Yucaipa; 15 feet N. of Ave. F. Gravel 155-172; 202-240; 300-315; 360-378; 388-464.	18248B	2,420		*x464	1202	7/21/32	42.8	0.10	22	223	11	25	4	51	11	23
E-138b-I-32	South Mesa Water Co., Well 6. S. of Yucaipa; 200 feet S. of Ave. H, 40 feet E. of 4th St., extended. Use: Irrigation. Casing: 16 inches.	18248B	2,471		x406	1203	7/21/32	42.6	0.07	42	186	16	34	11	37	10	45
D-138e-I-32	South Mesa Water Co., Well 4. S. of Yucaipa; 300 feet S. of Ave. L, on E. line of 4th St., extended. Use: Irrigation. Casing: 16 inches. Gravel 188-206; 208-218; 220-222; 310-316; 338-340; 362-368.	18249A	2,453		*x497	1204	7/21/32	48.1	0.05	30	244	27	12	4	43	19	38
E-139-I-32	Triple Falls Water Co., Well 2. N. of Yucaipa; 20 feet W. of 2d Ave., 0.23 miles N. of Center St. Use: Irrigation. Casing: 16 inches.	18263	2,842		x650	1242	8/ 5/32	47.4	0.09	39	223	9	38	7	45	11	46
E-139w-H-33	Section 30 Mutual Water Co., N. of Yucaipa; 0.37 miles S. of Carter St., 40 feet E. of 2d Ave. Use: Irrigation. Casing: 16 inches. Gravel 208-202; 204-318; 324-340; 354-358; 376-384; 400-414.	18264	2,817		*x420	1243	8/ 5/32	60.4	0.07	33	296	11	51	8	64	16	50
F-139f-II-32	B. T. Clyde, Well 2. N. of Yucaipa; 1300 feet W. of 2d Ave. 440 feet S. of F St., extended. Use: Irrigation. Casing: 16 inches.	18264C	2,760		1244	8/ 5/32	58.1	0.09	38	277	11	58	7	57	13	56	
E-140d-H-33	G. J. Trobridge, Yenepia; 1,000 feet N. of D St., 475 feet W. of Pendleton Ave. Use: Domestic and irrigation. Casing: 16 inches. Perforated 275-285; 299-323.	18275	2,680		*383	1245	8/ 5/32	49.2	0.07	23	247	14	32	4	56	14	30
E-141-I-33	Yucinia Water Co., No. 1, Well 9. SE. of Yucaipa; 70 feet S. of Ave. F, 0.15 miles E. of 10th Ave. In Illeg Canyon. Use: Irrigation. Casing: 10 inches. Perforated 50-529.	18288	2,812		*x145	1205	7/21/32	47.8	0.05	27	244	16	Tr.	4	49	16	33
E-141b-I-33	Yucaipa Water Co., No. 1, Willowhead Mean Well, SE. of Yucaipa; 700 feet S. of Ave. F, 300 feet E. of 10th Ave., extended due S. from Ave. F. On top of mesa. Use: Irrigation.	18288B	2,860		-----	1206	7/21/32	49.0	0.06	26	259	18	20	4	51	18	33
E-145b-I-34	Beaumont Irrigation District, Well 20. N. of Beaumont, 6,700 feet N. along Oak Glen Road from junction with Hig Canyon Road, 50 feet SW. of W. Ranch Road, 150 feet E. of creek; 1,100 feet N. and 1,900 feet E. of SW. corner of Sec. 2, T.2S., R.1W., S. B., & M. Use: Irrigation. Casing: 16 inches. Perforated 40-255.	18347	4,201		*x197	1208	7/20/32	36.1	0.06	15	198	6	22	1	42	16	14
E-146d-I-34	Benmont Irrigation District, Well 19. N. of Benmont, 2,6 miles N. along Oak Glen Road from Orchard St., 150 feet E. of Redlands Blvd. 50 feet E. of Well 16; 1,700 feet N. and 200 feet W. of SE. corner of Sec. 10, T.2S., R.1W., S. B., & M. Use: Irrigation. Casing: 16 inches. Perforated 40-255.	18338D	3,660		*x270	1207	7/20/32	39.6	0.02	18	217	7	22	2	46	16	18
E-223-I-30	J. H. Stewart, SE. of Redlands; 100 feet N.E. of S. P. R. R. 200 feet NE. of San Timoteo Canyon Road, 0.76 miles SE. of Redlands Blvd. 50 feet E. of Well 16; 1,700 feet N. and 200 feet W. of SE. corner of Sec. 10, T.2S., R.1W., S. B., & M. Use: Irrigation. Casing: 16 inches. Perforated 40-255.	17251A	1,692		*x540	1177	7/21/32	108	0.11	57	457	87	81	0	62	23	156
E-227d-J-32	Charles Singleton, SE. of Redlands; 1,700 feet SW. of El Cajon Bridge on San Timoteo Canyon Road, 100 feet SW. of El Cajon Creek; 0.23 miles S. B., & M. Use: Irrigation. Casing: 12 inches.	17313	2,044		x238	1179	7/21/31	55.3	0.07	78	a247	52	8	Tr.	17	5	104

TABLE 6. WELLS AND SURFACE WATERS IN SAN TIMOTEZO AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)									
							Specific electrical conductivity ($K \times 10^6$ at 25°C)	Boron ppm	Percent sodium	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Magnesium (Mg^{2+})	Sodium (Na^{+})		
E-229a-J-32	W. D. Burns (formerly Tom Singleton), S. of Yreinaia; 1,750 feet W. of the intersection of Burns Ave. and State Highway 0.75 miles SE. of Ave. L., 800 feet NW. of Burns Ave., extended. Use: Irrigation and domestic. Casing: 10 inches. Perforated 130-165; 215-491; 653. U.S.D.A. analysis on 7/21/32 is duplicate of D.W.R. Lab. No. 1180.	17330A	2,294	*x686	1180 (*)	7/21/32 7/21/32	42.4 42.4	Tr.	39 43	195 195	30 23	5 5	6 7	33 35	13 7	
E-230b-J-32	J. S. Haskell, S.E. of Redlands; 125 feet NE. of San Timoteo Canyon Road; 45 miles SW. of Millerton Bridge; 300 feet E. and 400 feet N. of SW. corner of Sec. 26, T.25, R.2W., S., B. & M. Casing in water trough in feed yard. Use: Stock. Casing: 10 inches. U.S.D.A. analysis on 7/21/32 is duplicate of D.W.R. Lab. No. 1181. Well is artesian.	17333	2,113	x600	1181 (*)	7/21/32 7/21/32	39.1 39.0	0.08 ---	50 51	201 207	16 10	4 4	30 30	8 6	50 49	
E-232-J-32	Dwight B. Cooper, S. of Yreinaia; 200 feet NE. of State Highway 1 mile SE. along State Highway from Ave. L. Use: Irrigation. Casing: 12 inches. Perforated 178-182; 205-216; 234-239; 254-274-284. U.S.D.A. analysis on 7/21/32 is duplicate of D.W.R. Lab. No. 1182.	17341D	2,387	*x285	1182 (*)	7/21/32 7/21/32	40.4 40.3	0.03 ---	37 37	195 201	28 30	8 6	28 29	17 17	39 39	
E-233-J-32	Moreno Mutual Irrigation Co. Well 5, S. of Yreinaia; 1,120 feet SW. of State Highway; 670 feet SE. of Moreno Ave., extended. 915 feet W. of Well 3. Use: Irrigation. Casing: 16 inches. Gravel 39-286. U.S.D.A. analysis on 7/20/32 is duplicate of D.W.R. Lab. No. 1183.	17342	2,249	*x288	1183 (*)	7/20/32 7/20/32	41.2 40.9	0.03 ---	28 29	217 217	16 16	8 8	39 39	16 15	30 29	
E-233h-J-32	Moreno Mutual Irrigation Co., Well 2, S. of Yreinaia; 400 feet SW. of State Highway 0.47 miles SE. of Moreno Ave. Use: Irrigation. Casing: 16 inches. Perforated 131-221; 206-360. U.S.D.A. analysis on 7/20/32 is duplicate of D.W.R. Lab. No. 1184.	17352D	2,257	*x387	1184 (*)	7/20/32 7/20/32	35.9 36.1	0.01 ---	26 26	201 204	9 11	12 8	4 7	38 33	13 13	24 24
E-236-J-33	C.L. Covington, NW. of Beaumont; 10 feet N. of Woodland Ave., 0.35 miles E. of State Highway. Use: Irrigation. Casing: 12 inches. U.S.D.A. analysis on 7/20/32 is duplicate of D.W.R. Lab. No. 1185.	17362	2,348	x220	1185 (*)	7/20/32 7/20/32	37.4 37.4	Tr. ---	20 21	204 207	13 7	8 7	6 7	39 39	17 15	20 19
E-237-K-33	J. D. Huston, W. of Beaumont; 1,600 feet S. of San Timoteo Canyon Road, 0.41 miles E. of where San Timoteo Canyon Road crosses S.P.R.R. 2 miles W. of State Highway. Use: Domestic. Casing: 10 inches. U.S.D.A. analysis on 7/21/32 is duplicate of D.W.R. Lab. No. 1186.	17376	2,335	x72	1186 (*)	7/21/32 7/21/32	39.7 39.1	0.01 ---	38 34	189 192	27 27	1 1	6 11	35 36	12 12	38 38
E-240f-J-33	J. Vincent Hunton, NW. of Beaumont; 400 feet N. of Vincent Sl., on E. line of Union Ave., extended. Use: Irrigation. Casing: 16 inches.	17392C	2,717	x200	1178 (*)	7/21/32 7/21/32	42.2 39.1	0.02 ---	31 34	204 192	25 27	13 1	6 1	32 36	20 12	33 33
E-241-J-33	L. T. Smith, NW. of Beaumont; 2,500 feet S. of Ranch Ave., 1 mile W. of Nancy Ave., extended, 1,600 feet NW. of State Highway. Use: Irrigation and domestic. U.S.D.A. analysis on 7/21/32 is duplicate of D.W.R. Lab. No. 1187.	17394	2,491	x328	1187 (*)	7/21/32 7/21/32	31.3 31.1	0.01 ---	21 21	162 165	9 9	11 2	6 11	33 34	13 11	16 16
E-242-K-33	Nellie M. Worley, W. of Beaumont; 250 feet N. of Jackrabbit Trail (San Gorgonio Drive). 0.6 miles W. of S.P.R.R. Use: Irrigation. Casing: 16 inches. Gravel 384-388; 454-494.	17396	2,432	*x1300	1188 (*)	Dec. 1923 7/21/32	35.6 35.6	0.02 ---	78 78	165 182	59 21	6 6	2 2	11 11	4 4	74 74
E-243J-J-33	Beaumont Irrigation District, Well 38, N. of Beaumont; 1,800 feet N. of Orchard St., 50 feet W. of Nancy Ave., extended. Use: Irrigation. Casing: 12 inches. Perforated 285-785. U.S.D.A. analysis on 7/20/32 is duplicate of D.W.R. Lab. No. 1189.	17401J	2,852	*811	1189 (*)	7/20/32 7/20/32	53.9 53.3	0.02 ---	37 37	253 256	28 28	39 36	2 2	41 41	20 21	50 50
E-244-J-34	Beaumont Irrigation District, Well 30, N. of Beaumont; 25 feet N. and 700 feet E. from SW. corner of Sec. 14, T. 25, R. 1W., S. B. & M., 50 feet E. of Edgar Creek. Use: Irrigation. Casing: 16 inches. Perforated 35-40; 70-75; 90-95; 112-176; 190-195; 200-237. U.S.D.A. analysis on 7/20/32 is duplicate of D.W.R. Lab. No. 1190.	17430H	3,180	*308	1190 (*)	3/28/29 7/20/32	41.5 40.4	0.01 ---	20 19	214 220	11 11	10 20	2 2	51 47	19 16	20 20
E-258-K-34	Riefield Oil Co., E. of Beaumont; 150 feet N. of State Highway, 0.27 miles E. of Glen Eyre Ave. Use: Domestic. Casing: 12 inches. Perforated 200-340; 344-350.	17456	2,580	*353	1191	7/20/32	39.5	Tr.	27	214	20	0	8	36	16	27

TABLE 6. WELLS AND SURFACE WATERS IN SAN TIMOTEZO AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)									
							Specific electrical conductivity ($K \times 10^4$ at 25°C)	Boron ppm	Percent sodium	Chloride radicle (Cl ⁻)	Sulfate radicle (SO ₄ ²⁻)	Nitrate radicle (NO ₃ ⁻)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
E-258a-K-34	R. P. Stewart, SE. of Beaumont; 300 feet E. of Laurel Road (Glen Eyre Ave., extended), 0.58 miles S. of State Highway. Use: Domestic. Casing: 10 inches.	17457	2,544	x295	1192	7/20/32	23.9	0.05	34	113	14	0	8	20	10	21
E-230-K-34	R. P. Stewart, SE. of Beaumont; 200 feet E. of Laurel Road (Glen Eyre Ave., extended), 1.4 miles S. of State Highway. Use: Stock. Casing: 10 inches.	17459	2,478	x91	1193	7/20/32	34.0	0.03	29	186	13	1	6	44	10	28
S17462-J-34	Highland Springs Health Resort, NE. of Beaumont. Gravity water from springs in canyon, N.E. of hotel. Sampled at outlet to reservoir N. of hotel, 1.25 miles N. of Grand St. on line of Hillside Ave., extended. Use: Irrigation. Discharge 0.13 second-feet.	S17462	3,200	-----	1194	7/20/32	20.1	0.03	25	98	6	2	8	19	9	13
S18347-I-34	Beaumont Irrigation District, Edgar Canyon Creek, N. of Beaumont. Gravity flow at well 900 feet N. and 1,900 feet E. of SW corner of Sec. 2, T. 2S., R. IV., S. B. B. & M., 200 feet S. of Well E-145b-1-34 (Owner's Well 20). Use: Irrigation. Discharge 0.4 second-feet.	S18347	4,285	-----	1200	7/20/32	35.0	0.05	16	198	2	19	Tr.	39	14	14

* Log in files of Division of Water Resources.

x Water levels in files of Division of Water Resources.

^a Includes small equivalent quantity of Carbonate (CO₃²⁻).^b Sulfate (SO₄²⁻) determined by turbidity method.^c Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.^d Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.^e Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.^f Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.

TABLE 7. WELLS AND SURFACE WATERS IN VENICE AREA

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)									
							Specific electrical conductance ($K \times 10^4$ at $25^\circ C$)	Boron ppm	Percent sodium $\frac{Na}{Ca + Mg}$	Bicarbonate radicle (HCO_3^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
B-1a-H-5	United States Government Soldiers' Home, Well 11, Sawtelle; 125 feet W. of Sepulveda Blvd., 0.25 miles N. of Wilshire Blvd. Use: Domestic and irrigation. Casing: 12 inches.	2544	343	x300	180	7/30/31	94.5	.....	19	324	50	127	40	103	40	46
B-4f-11-5	City of Santa Monica, Arcadia Plant, Well 1, E. of Santa Monica Blvd., 40 feet S. of Wilshire Blvd., 50 feet E. of Bundy St. Use: Municipal, standby plant. Casing: 18 inches. Gravel 60; 95; 120; 134; 138-170; from composite log of 5 wells in group.	2535B	244	*200	181	7/30/31	93.6	.....	21	259	48	212	2	87	46	51
B-5a-1-5	American States Water Service Co., Well 8, Venice; 800 feet N. of Laach Blvd., 700 feet NW. of Lake St. Use: Not used. Casing: 20 inches. Gravel 60-90; 111-123. L. A. C. I. D. analysis from sample 15 feet below surface of water. Lab. No. 1362 from bottom of well.	2539C	24	*x200	(4)	6/29/31	350	0.37	.....	100	1,044	277	916	.....	.....	.....
B-5b-1-5	City of Santa Monica, Marine New Well 5, Santa Monica; 215 feet SE. of Marine St., 100 feet SW. of 16th St., 20 feet from Old Well 5. Use: Municipal. Casing: 16 inches. Perforated 33-140.	2539D	24	*204	(4)	6/13/31	7,17,31	.....	25	308	81	6108	.....	.....	.....	.....
B-5c-1-5	American States Water Service Co., Well 6, Venice; 1,025 feet NE. of Lincoln Blvd., 240 feet NW. of Venice St. Use: Not used. Casing: 18 inches. Perforated 47-105. Sampled from bottom of well.	2539A	22	*140	1363	9/6/32	473	0.18	.....	276	135	277	119	0	97	51
B-5d-1-5	Francisco M. Cotu, SE. of Santa Monica; 140 feet W. of 23rd St., 20 feet S. of Dewey St. Use: Irrigation.	2539A	35	.....	(4)	6/13/31	4,30/32	.....	278	142	278	142	.....	.....	.....	.....
B-5e-1-5	American States Water Service Co., Well 7, Venice; 1,025 feet SE. of Marine St., 290 feet SW. of 16th St. Use: Municipal. Casing: 18 inches. Perforated 28-100.	2539E	23	*182	(4)	7/17/31	.....	.....	201	1,260	.....	.....	.....	.....	.....	.....
B-5f-1-5	City of Santa Monica, Marine New Well 2, Santa Monica; 390 feet SE. of Marine St., 25 feet SW. of 16th St., 18 feet from Old Well 2. Use: Municipal. Casing: 16 inches. Gravel 20, 80, from log of Old Well 2.	2539F	23	200	(4)	7/17/31	3,25/32	153	0.23	24	332	97	1,166	Tr.	149	64
B-5j-1-5	City of Santa Monica, Well 4, Santa Monica; 50 feet SE. of Marine St., 350 feet SW. of 16th St. Use: Municipal. Casing: 18 inches. Perforated 23-115.	2539H	25	*139	(4)	7/17/31	.....	.....	288	276	6130	.....	.....	.....	.....	.....
B-5h-1-5	L. F. Arnold, SE. of Sawtelle; 375 feet SW. of Sawtelle Blvd., 50 feet SW. of Richland Ave. Use: Irrigation and domestic. Casing: 14 inches. Gravel 220; 314-334.	2566A	141	*380	176	7/30/31	69.6	.....	28	268	84	b92	.....	.....	.....	.....
B-7f-1-6	American States Water Service Co., Pacific Plant, Well 1, SW. of Culver City; 75 feet SE. of Pacific Ave., 120 feet NE. of Wasatch Ave., 50 feet N. of Well 2. Use: Municipal. Casing: 10 inches. Gravel 77, 105.	2566I	54	*225	(4)	10/7/30	6/8/31	.....	247	38	115	4	87	32	54	
B-8a-1-6	American States Water Service Co. (formerly Peoples Water Co.), Plant 1, Well 3, Palms; 20 feet SW. of Manning Ave., 175 feet SE. of Woodbine St. Use: Domestic. Casing: 16 inches. Gravel 125-137; 173-170.	2596	179	*x263	(4)	4/20/32	.....	.....	25	296	73	73	0	98	42	62
B-9a-1-6	City of Santa Monica, Charnock Well 2, E. of Santa Monica; 407 feet SW. of Sawtelle Blvd., 171 feet NW. of Westminster Ave., 140 feet SW. of Corinth Ave. Use: Municipal. Casing: 18 inches. Perforated 68-104; 140-170; 170-182; 197-209; 227-245; 260-305; 360-380.	2578D	100	*x388	(4)	7/17/31	.....	.....	345	65	b50	.....	.....	.....	.....	.....
B-10d-1-6	City of Santa Monica, Charnock Well 2, E. of Santa Monica; 705 feet SW. of Sawtelle Blvd., 151 feet NW. of Westminster Ave., 71 feet SW. of Purdie Ave. Use: Municipal. Casing: 18 inches. Perforated 104-119; 185-209; 230-305; 335-353.	2578E	48	*393	(4)	7/17/31	.....	.....	278	67	b123	.....	.....	.....	.....	.....
B-10f-1-6	City of Santa Monica, Charnock Well 3, E. of Santa Monica; 825 feet SW. of Sawtelle Blvd., 150 feet NW. of Westminster Ave., 67 feet SE. of Butler Ave. Use: Municipal. Casing: 18 inches. Perforated 100-106; 162-170; 192-236; 240-309; 327-340.	2578F	95	*386	(4)	7/17/31	.....	.....	288	56	b132	.....	.....	.....	.....	.....

TABLE 7. WELLS AND SURFACE WATERS IN VENICE AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^3$ at 25°C)	Constituents (parts per million)					
								Boron ppm	Percent sodium	Chloride radicle (Cl ⁻)	Nitrate radicle (NO ₃ ⁻)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B-10g-1-6	City of Santa Monica, Charnock Well A, E. of Santa Monica; 1,015 feet SW of Sawtelle Blvd., 140 feet NW of Westminster Ave., 14 feet SW of Butler Ave. Use: Municipal. Casing 18 inches, Perforated 190-350.	2578G	95	*468	(4)	7/17/31	--	--	298	43	86	b144	
B-10h-1-6	City of Santa Monica, Charnock Well 5, E. of Santa Monica; 163 feet SW of Sawtelle Blvd., 110 feet NW of Westminster Ave., 113 feet SE of Corinth Ave. Use: Municipal. Casing: 20 inches. Perforated 170-200; 215-230; 257-300.	2578H	105	*382	(4)	7/17/31	--	--	298	53	89	4	77
B-10i-1-6	City of Santa Monica, Charnock Well 6, E. of Santa Monica; 350 feet SW of Sawtelle Blvd., 24 feet NW of Westminster Ave., 24 feet SW of Corinth Ave. Use: Municipal. Casing: 18 inches, Perforated 178-188; 220-288.	2578I	101	*384	(4)	7/17/31 7/30/31	83.3	--	293 274	52	134	4	77
B-10j-1-6	City of Santa Monica, Charnock Well 7, E. of Santa Monica; 360 feet SW of Sawtelle Blvd., 24 feet NW of Westminster Ave., 24 feet SE of Purdie Ave. Use: Municipal. Casing: 18 inches, Perforated 174-200; 222-240.	2578J	98	*x400	(4)	7/17/31	--	--	273	59	118		
B-10k-1-6	City of Santa Monica, Charnock Well 8, E. of Santa Monica; 766 feet SW of Sawtelle Blvd., 24 feet NW of Westminster Ave., 132 feet SW of Purdie Ave. Use: Municipal. Casing: 18 inches, Perforated 110-130; 225-240; 308-312.	2578K	96	*390	(4)	10/ 7/30 6/ 8/31 7/ 7/31	730 831 731	--	289 283 278	50 43 51			
B-10n-1-6	City of Los Angeles, Berryman Well 1, SW. of Culver City; 100 feet SW of Berryman Ave., 500 feet SE. of Washington Blvd. Use: Municipal.	2589A	43	x	(4)	4/ 3/30 8/ 8/32	94.3	0.08	26	227 324	77 77	0	90
B-10o-1-6	American States Water Service Co. (formerly Peoples Water Co.), Plant 3, Well 6, Culver City; 265 E. of Sepulveda Blvd., 388 feet N. of Washington Blvd. Use: Municipal. Casing: 18 inches, Perforated 164-222.	2589B	53	*x402	(4)	10/ 7/30	--	--	281	59			
B-10p-1-6	Guy Beringholz, Palms; 125 feet W. of Overland Blvd., 180 feet N. of Venice Blvd. Use: Domestic. Casing: 10 inches.	2598	84	x80	1364	9/ 7/32	53.3	0.16	--	241	46		
B-13f-1-7	Leo Youngworth, S. of Culver City; 1,300 feet E. of Overland Ave., from point 0.3 miles SE. of Jefferson Blvd., 80 feet S. of channel in bottom of small canyon. Use: Irrigation.	2619A	135	--	--	892	3/25/32	232	0.78	445	467	182	0
B-23a-1-5	Venice Consolidated Water Co., Well 10, Venice; 75 feet N. of Venice Blvd., 40 feet W. of P. Mar. Ave. Use: Domestic. Casing: 7-263. Lab. No. 1263 collected with depth sampler from bottom of well.	1240A	27	*x270	(4)	4/ 3/30 8/ 9/32	117	0.08	23	466 287	195 124	209	1
B-23b-1-5	W. M. Humes, Venice; 120 feet SW. of Lincoln Blvd., 150 feet SE. of Conner D Acne. Use: Irrigation. Casing: 12 inches. Perforated from bottom up to top of water.	1240B	24	*210	(4)	4/ 3/30 10/ 9/31	249	0.14	25	434 351	64 462	325	16
B-23c-1-5	Venice Consolidated Water Co., Well 11, Venice; 75 feet S. of Zatua St., 30 feet W. of Walnut St. Use: Municipal, standby. Casing: 18 inches. Gravel 55-67; 85-97; 127-136; 211-277.	1250	20	*x277	(4)	10/ 7/30	--	--	336	188			
B-23d-1-6	Venice High School, Well 1, Venice; 500 feet S. of Venice Blvd., 600 feet E. of Waigrove St. Use: Domestic and irrigation, standby plant. L. A. D. of W. & P. No. 9-B-16.	1250A	35	200	(e)	5/ 2/30 6/ 3/30 3/ 2/31	--	--	24 234 34	286 254 272	65 60 77	204 218 210	
B-23e-1-6	Brentwood Dairy, Venice; 150 feet E. of Del Rey Ave., 200 feet S. of Beach St. Use: Industrial, cooling and washing bottles.	1250B	20	200	(f)	4/ 1/30 6/ 8/31	--	--	458	131			
				416	(f)	10/ 9/31	312	0.14	25	309 320	604 770	482 541	1
				883	(f)	3/ 2/32 3/ 2/32	351	0.24	24	781 320	746 770	317 541	Tr.
				970	(f)	4/ 2/32 6/ 3/32	346	0.12	23	317 332	772 763	314 312	145
				1036	(f)	7/ 5/32	346	0.12	23	308 319	719 669	308 485	Tr.
				1140	(f)	8/ 8/32	330	0.09	23	314 311	669 596	311 311	151
				1264	(f)	10/ 10/32	294	0.15	25	311 311	719 566	311 311	207
				1464	(f)	10/ 10/32	294	0.16	26	311 311	719 566	311 311	112
				1528	(f)	11/ 3/32	283	0.16	26	311 311	719 566	311 311	179
				1590	(f)	12/ 13/32	286	0.23	23	311 311	719 566	311 311	145

TABLE 7. WELLS AND SURFACE WATERS IN VENICE AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 ⁻⁴ at 25°C)	Constituents (parts per million)								
								Boron ppm	Percent sodium	Chloride radicle (Cl)	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
B-23t-1-6	Venice High School, Well 2, Venice; 300 feet S. of Venice Blvd., 580 feet E. of Walkover St.; 30 feet W. of Well 1. Use: Domestic and irrigation. Casing: 6 inches. L. A. D. of W. & P. No. 9-B-17.	1250C	35	250	(e)	11/ 5/29	.....	40	373	64	214	.....	104	27	114
					(e)	12/ 6/30	.....	9	300	64	207	.....	166	22	e22
					(e)	4/ 2/30	.....	13	318	72	299	.....	166	21	346
					(e)	9/ 3/30	.....	34	304	68	207	.....	112	22	88
					(e)	10/ 2/30	.....	22	314	66	206	.....	113	26	58
					(e)	10/ 7/30	.....	63	316	60	205	.....	57	29	.....
					(e)	11/ 8/30	.....	50	273	60	205	.....	57	29	e119
					(e)	12/ 2/30	.....	25	298	58	208	.....	123	24	e63
					(e)	1/ 5/31	.....	43	298	60	211	.....	96	18	e108
					(e)	1/ 8/31	.....	29	300	64	206	.....	112	27	e74
					(e)	2/ 9/31	.....	36	261	62	210	.....	88	30	e87
					(e)	4/ 1/31	.....	37	334	62	212	.....	113	25	e102
					(e)	6/ 8/31	.....	60	307	60	205	.....	57	29	.....
					(e)	3/2 10/ 1/31	101	0.07	25	320	59	201	Tr.	99	45	65
					(e)	12/ 8/31	.....	.....	312	64	.....	.....	.....	.....	.....
					(e)	4/ 27/32	.....	.....	322	64	.....	.....	.....	.....	.....
					(e)	6/ 8/31	.....	.....	281	1,058	.....	.....	.....	.....	.....
B-23m-1-6	Frank Coon, Venice; 150 feet E. of Del Rey Ave., 250 feet S. of Beach Ave., 30 feet SE. of B-23c-1-6. Use: Domestic. Casing: 12 inches.	1250D	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B-24n-J-6	Del Rey Land and Water Co., Well 2, E. of Venice; 1,000 feet SE. of intersection of Thatcher Drive and Ingewood line of P. E. Ry. from Venice; 150 feet SW. of P. E. Ry. Use: Irrigation. Casing: 12 inches. L. A. D. of W. & P. No. 9-B-21.	1251A	14	x145	(e)	11/ 5/29	.....	33	503	144	518	.....	222	53	e173
					(e)	12/ 6/29	.....	14	504	156	562	.....	290	79	e77
					(e)	5/ 2/30	.....	31	429	144	337	.....	160	59	e31
					(e)	9/ 3/30	.....	17	360	156	355	.....	156	66	e85
					(e)	19/ 2/30	.....	12	447	148	355	.....	279	77	e64
					(e)	11/ 8/30	.....	24	460	160	444	.....	296	35	e131
					(e)	2/ 9/31	.....	34	483	177	395	.....	182	59	e165
					(e)	2/ 9/31	.....	35	508	234	591	.....	228	76	e22
					(e)	3/ 2/31	.....	27	497	234	596	.....	257	84	e171
					(e)	4/ 1/31	189	0.17	27	473	180	408	11	187	74	131
					(e)	1/ 8/30	.....	21	488	130	339	.....	235	37	e90
					(e)	4/ 2/30	.....	5	429	128	358	.....	262	50	e21
					(e)	6/ 3/30	.....	14	267	160	581	.....	245	70	e89
					(e)	12/ 2/30	.....	46	472	200	661	.....	264	19	e285
					(e)	10/ 1/31	226	0.17	26	325	192	573	35	91	154	
B-24c-J-6	Edgarin Farms, Inc., Venice; 80 feet SE. of Maxella Ave., 30 feet SW. of Del Rey Ave. Use: Domestic and dairy stock.	1251C	17	185	(e)	4/ 1/30	.....	311	110	.....	.....	.....	.....	.....	.....
					(e)	4/ 10/ 9/31	202	0.18	28	518	266	835	39	312	97	209
					(e)	4/ 29/32	.....	997	997	327	.....	.....	.....	.....	.....
B-24d-J-6	Mr. Hippert, E. of Venice; 80 feet NW. of Maxella Ave., 200 feet NE. of Del Rey Ave. Use: Irrigation. Perforated 25-45; 63-75.	1251D	19	* 79	(e)	4/ 1/30	.....	966	966	557	.....	.....	.....	.....	.....
					(e)	4/ 29/32	.....	693	291	.....	.....	.....	.....	.....	.....
B-24j-J-6	Los Angeles County Flood Control District, Test Well 4, SE. of Venice; 500 feet SW. of junction of Jefferson Blvd. and Culver Blvd., W. of P. E. Ry. Use: L. A. C. P. C. D. test well. Casing: 6 inches. Sampled at 20, 45, 65, 85, 105, and 110 feet depths, respectively.	1253	5	110	(e)	4/ 20/31	.....	.....	.....	3,980	.....	.....	.....	.....	.....
					(e)	4/ 20/31	.....	.....	.....	160	227	.....	.....	.....	.....
					(e)	4/ 20/31	.....	.....	.....	155	155	973	973	973	973
B-25f-1-6	Washington Park Mutual Water Co., Venice; 100 feet S. of Washington Blvd. and halfway between McConnell and Mildred Sts. Use: Domestic. Casing: 12 inches, in 32-foot pit.	1260	41	x108	(e)	4/ 3/30	.....	554	252	.....	.....	.....	.....	.....	.....
					(e)	10/ 7/30	.....	325	50	.....	.....	.....	.....	.....	.....
					(e)	6/ 8/31	98.6	0.11	27	284	59	151	14	93	40	67
					(e)	4/ 27/32	.....	347	64	.....	.....	.....	.....	.....	.....
B-25a-1-6	Uchida Co., E. of Venice; 100 feet E. of Centinella Ave., 500 feet N. of Washington Blvd. Use: Domestic, nursery stock and vegetables. Casing: 6 inches.	1270	48	(x)	(e)	4/ 1/30	.....	391	479	.....	.....	.....	.....	.....	.....
					(e)	10/ 9/31	95.4	0.06	24	284	78	167	2	94	42	55
B-25b-1-6	Mrs. Louise Smith, E. of Venice; 140 feet E. of Grandview Ave., 325 feet N. of Washington Blvd. Use: Domestic. Casing: 14 inches. Perforated 96-100.	1270A	49	x141	(e)	10/ 9/31	117	0.11	.....	363	87	.....	.....	.....	.....
					(e)	4/ 27/32	.....	.....	.....	106	106	.....	.....	.....	.....
B-25c-1-6	Suburban Mutual Water Co., E. of Venice; 250 feet S. of intersection of Washington Blvd. and Centinella Ave. Use: Domestic. 120 ft. W. of Centinella Ave. Use: Domestic.	1270B	42	.....	(e)	4/ 1/30	.....	348	110	.....	.....	.....	.....	.....	.....
					(e)	6/ 13/31	.....	328	57	.....	.....	.....	.....	.....	.....
					(e)	10/ 9/31	98.2	0.10	.....	339	62	.....	.....	.....	.....
					(e)	4/ 29/32	.....	332	78	.....	.....	.....	.....	.....	.....
B-25d-1-6	Suburban Mutual Water Co., E. of Venice; 70 feet S. of Short St., 120 ft. W. of Centinella Ave. Use: Domestic.	1270C	31	.....	(e)	6/ 13/31	.....	453	142	.....	.....	.....	.....	.....	.....
					(e)	4/ 29/32	.....	489	142	.....	.....	.....	.....	.....	.....

TABLE 7. WELLS AND SURFACE WATERS IN VENICE AREA--Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^{-4}$ at 25°C)	Boron ppm	Constituents (parts per million)								
									Percent sodium Na x 100 $\frac{Na + Mg}{Ca + Na}$	Bicarbonate radicle (HCO_3^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca^{2+})	Magnesium (Mg^{2+})	Sodium (Na^+)		
B-20-J-6	Brentwood Dairy, E. of Venice; 40 feet N. of Maxella Ave., 100 feet E. of Ocean Park Ave. Use: Stock and irrigation. Not used for drinking.	1261	22	-	(4)	4/1/30	350	0.43	35	804	337	674	133	319	152	347	
B-26a-J-6	H. Michael Well 2, E. of Venice; 20 feet S. of Maxella Ave., 30 feet E. of Redwood Drive. Use: Irrigation. Casing: 14 inches. Perforated 120-124; 150-171. L. A. D. of W. & P. No. 9-B-23.	1261A	24	*207	(4)	4/1/30	32	-	-	1,000	390	-	-	-	-	-	
B-26b-J-6	N. Nojima, Lessee, E. of Panama St., 150 feet W. of Beethoven St., 550 feet E. of Alfa Rend. Use: Irrigation.	1271	13	175	(4)	4/1/30	32	-	-	300	67	121	288	72	38	*196	
B-26c-J-6	Mr. Nitani, Lessee, E. of Venice; 1,700 feet NE. of intersection of P. K. Ry. and Culver Blvd. at Alfa Station, 100 feet SE. of Culver Blvd., 200 feet SW. of Mozart Ave. Use: Irrigation. L. A. D. of W. & P. No. 9-B-26.	1271A	16	-	(4)	4/1/30	32	-	-	355	142	83	-	-	-	-	
B-26d-J-6	H. Michael Well 1, E. of Venice; 540 feet S. of Maxella Ave., 150 feet W. of Michael St., projected southerly. Use: Irrigation. Casing: 14 inches. Perforated from 170 feet up to top of water. L. A. D. of W. & P. No. 9-B-24.	1291B	22	*201	(4)	10/2/30	32	-	-	449	135	-	-	-	-	-	
B-26e-J-6	Del Rey Land and Water Co., E. of Venice; 100 feet N. of P. E. Ry. to Plaza Del Rey and 50 feet W. of Y track at Alfa Station on P. E. Ry. Use: Irrigation. Casing: 14 inches. Perforated 35-50; 75-90. Water has H2S odor.	1271C	10	x150	380	10/1/31	158	0.24	31	518	174	190	174	0	144	60	126
B-26f-J-6	Del Rey Land and Water Co., Well 3, E. of Venice; 150 feet S. of P. E. Ry., 1,000 feet easterly along P. E. Ry. to Venice from intersection with Culver Blvd. Use: Irrigation. Casing: 12 inches. Water has H2S odor.	1261C	10	140	375	10/1/31	207	0.28	31	522	163	486	27	-	-	-	-
B-27a-J-6	Henry J. Kidson, E. of Venice; 0.27 miles NE. of Lincoln Blvd., E. of Bay St., 80 feet S. of S. levee of Ballona Creek. Use: Domestic and irrigation. Casing: 12 inches.	1272A	10	20	419	10/9/31	265	1.40	53	906	373	172	1	149	79	83	167
B-27b-J-6	Henry J. Kidson, E. of Venice; 0.36 miles NE. of Lincoln Blvd. (Roosevelt Highway), 0.22 miles NW. of Jefferson Blvd., 550 feet E. of Bay St. on S. levee of Ballona Creek. Use: Irrigation. Casing: 14 inches. L. A. D. of W. & P. No. 9-B-40.	1272B	12	160	(4)	4/3/30	32	-	-	548	96	28	-	-	116	36	*81
B-27c-J-6	Joseph Meister, La Ballona Ranch Well 7, Plant 4, SE. of Venice; 0.15 miles SE. of Jefferson Blvd., 0.22 miles SW. of Monroe St. Use: Irrigation. Casing: 16 inches. Perforated 40-68. L. A. D. of W. & P. No. 9-B-41.	1272C	9	*176	(4)	10/2/29	32	-	-	339	126	117	-	-	-	-	-
B-27d-J-6	-				(4)	12/9/29	32	-	-	38	432	124	108	84	45	e113	-
B-27e-J-6	-				(4)	1/7/30	32	-	-	49	464	108	24	107	24	e50	-
B-27f-J-6	-				(4)	2/2/30	32	-	-	30	418	138	160	11	30	e103	-
B-27g-J-6	-				(4)	5/2/30	32	-	-	39	405	132	160	129	40	e94	-
B-27h-J-6	-				(4)	6/3/30	32	-	-	31	400	120	131	85	42	e114	-
B-27i-J-6	-				(4)	9/3/30	32	-	-	37	339	126	117	117	36	e89	-
B-27j-J-6	-				(4)	10/2/30	32	-	-	39	404	124	106	89	46	e119	-
B-27k-J-6	-				(4)	3/2/31	32	-	-	44	356	185	205	92	48	e156	-
B-27l-J-6	-				(4)	4/1/31	32	-	-	44	437	170	146	94	49	e154	-
B-27m-J-6	-				(4)	6/8/31	32	-	-	457	135	128	-	-	-	-	-
B-27n-J-6	-				(4)	10/1/31	32	0.21	37	476	126	144	0	87	61	128	-
B-27o-J-6	-				(4)	4/29/32	32	-	-	469	-	-	-	-	-	-	-

TABLE 7. WELLS AND SURFACE WATERS IN VENICE AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific dielectric conductivity (K $\times 10^4$ at 25°C)	Boron ppm	Constituents (parts per million)						
									Percent sodium Na x 100 Ca + Mg + Na	Bicarbonate radicle (HCO ₃)	Chloride radicle (Cl)	Sulphate radicle (SO ₄)	Nitrate radicle (NO ₃)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B-27d-J-6	Joseph Mesner, La Ballona Ranch Well 9, Plant 7, SE. of Venice, 0.14 miles NE. of Lincoln Blvd. (Roosevelt Highway), 0.45 miles SE. of Jefferson Blvd. Use: Irrigation. Casing: 10 inches. Perforated 55-67. Use: Irrigation. Casing: 10 inches.	1273	20	*150	(1)	4/ 3/30	-----	-----	51.7	263	-----	-----	-----	-----	-----
				(1)	10/ 8/31	-----	-----	-----	34.4	153	-----	-----	-----	-----	-----
				(1)	10/ 9/31	160	0.22	30	40.9	178	-----	-----	-----	-----	-----
				(1)	3/30/32	192	0.31	28	430	172	284	0	136	70	127
				(1)	5/12/32	175	0.44	29	473	209	414	4	173	85	142
				(1)	10/30/32	181	0.28	29	451	190	327	6	152	82	132
				(1)	6/ 3/32	175	0.24	27	460	195	454	181	318	6	146
				(1)	11/4/32	175	0.24	31	457	181	318	6	146	74	135
				(1)	12/6/32	172	0.16	31	442	170	442	4	139	74	131
				(1)	13/8/32	169	0.26	31	442	170	442	4	139	74	131
B-27e-J-6	Del Rey Land and Water Co., Windmill Well, E. of Venice; 900 feet S. of P. E. Ry. to Venice, 800 feet NW. of Culver Blvd. Use: Hothouse and washing vegetables. Casing: 12 inches.	1262	8	x120	-----	-----	-----	-----	460	190	479	190	-----	-----	-----
				376	10/ 1/31	186	0.30	38	656	213	171	0	143	71	181
				378	10/ 1/31	220	0.30	40	662	373	112	0	131	90	217
				376	10/ 1/31	186	0.30	38	656	213	171	0	143	71	181
				378	10/ 1/31	220	0.30	40	662	373	112	0	131	90	217
B-27f-J-6	Joseph Mesner, Plant 5, SE. of Venice; 0.08 miles SE. of Jefferson Blvd., 0.25 miles NE. of Lincoln Blvd. (Roosevelt Highway). Use: Irrigation. Water has H ₂ S odor. E. S. Merrill Sanitarium, E. of Venice; 100 feet S. of Culver Blvd., 600 feet E. of Centinella Ave. Use: Domestic. Casing: 12 inches.	1272D	8	-----	-----	-----	-----	-----	382	284	-----	-----	-----	-----	-----
				31	x120	(1)	6/13/31	157	0.19	36	403	202	216	0	127
				(1)	10/ 9/31	171	0.24	36	393	259	334	334	231	4	144
				(1)	3/25/32	171	0.24	36	403	304	215	215	304	7	152
				(1)	4/27/32	187	0.26	33	403	304	215	215	304	7	152
				(1)	5/12/32	187	0.26	33	400	250	250	250	250	7	152
				(1)	10/37/32	172	0.23	33	400	213	213	213	213	7	152
				(1)	6/ 3/32	163	0.23	33	400	213	213	213	213	7	152
				(1)	11/4/32	163	0.22	36	396	213	213	213	213	7	152
				(1)	12/6/32	163	0.22	36	396	204	204	204	204	7	152
B-29b-1-6	Mesner City Corporation, Ltd., Mesner City Well 1, E. of Venice; 150 feet E. of Inglewood Blvd., 120 feet S. of Port Road. Use: Municipal. Casing: 10 inches.	1280B	31	-----	-----	-----	-----	-----	396	204	204	204	204	7	152
				31	x120	(1)	6/13/31	157	0.19	36	403	202	216	0	127
				(1)	10/ 9/31	171	0.24	36	393	259	334	334	231	4	144
				(1)	3/25/32	187	0.26	33	403	304	215	215	304	7	152
				(1)	4/27/32	187	0.26	33	400	250	250	250	250	7	152
				(1)	5/12/32	172	0.23	33	400	213	213	213	213	7	152
				(1)	10/37/32	172	0.23	33	400	213	213	213	213	7	152
				(1)	11/4/32	163	0.23	33	400	213	213	213	213	7	152
				(1)	12/6/32	163	0.22	36	396	213	213	213	213	7	152
				(1)	13/8/32	157	0.17	36	393	204	204	204	204	7	152
B-30-J-6	Loyola University, SE. of Venice; 70 feet E. of Fordham Road, 0.35 miles N. of 80th St., 0.75 miles N. of Manchester Ave., on University Grounds. Use: Domestic and irrigation. Casing: 18 inches.	1291	20	x402	-----	-----	-----	-----	396	204	204	204	204	7	152
				20	-----	-----	-----	-----	396	204	204	204	204	7	152
				20	-----	-----	-----	-----	396	204	204	204	204	7	152
				20	-----	-----	-----	-----	396	204	204	204	204	7	152
				20	-----	-----	-----	-----	396	204	204	204	204	7	152
				20	-----	-----	-----	-----	396	204	204	204	204	7	152
				20	-----	-----	-----	-----	396	204	204	204	204	7	152
				20	-----	-----	-----	-----	396	204	204	204	204	7	152
				20	-----	-----	-----	-----	396	204	204	204	204	7	152
				20	-----	-----	-----	-----	396	204	204	204	204	7	152
B-31-J-6	Joseph Mesner, La Ballona Ranch Well 5, Plant 3, SE. of Venice; 0.2 miles S. of Jefferson Blvd. Use: Irrigation. Casing: 16 inches. Perforated 38-75. Water has H ₂ S odor.	1282	136	x400	(1)	10/13/30	-----	-----	362	79	-----	-----	-----	-----	-----
				(1)	6/ 8/31	88.0	0.24	45	372	87	87	87	360	1	49
B-31b-J-6	Mesner City Corp., Ltd. (formerly Joseph Mesner), Mesner's, La Ballona Ranch Well 6, Plant 2, SE. of Venice; 500 feet W. of Centinella Blvd., 200 feet E. of Grosvenor Blvd., 50 feet S. of Gabrey St., 0.2 miles S. of Jefferson Blvd. Use: Irrigation. Casing: 16 inches. Perforated 38-75. Water has H ₂ S odor.	1292A	13	*200	184	7/31/31	176.2	-----	317	43	184	0	88	40	59
				(1)	10/ 8/31	124	0.17	38	497	130	95	0	92	48	120
S2618-1-7	Ballona Creek Culver City, Sampled at L. A. C. F. C. D. Staffage station No. 117, at Duquesne St. crossing. Discharge during summer usually second foot (estimated). Discharge during tide water penetrates into creek bottom before reaching tide water.	S2618	55	-----	236	8/19/31	193.5	-----	59	350	201	6	89	45	272

^a Log in files of Division of Water Resources.^b Water levels in files of Division of Water Resources.^c Includes small equivalent quantity of Carbonate (CO₃).^d Sulphate (SO₄) determined by turbidity method.^e Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.^f Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.^g Analysis by City of Los Angeles, Department of Water and Power Laboratory; Carl Wilson, Director.^h Analysis by Los Angeles County Flood Control District, Los Angeles.

TABLE 8. WELLS IN LOS ANGELES AREA

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^{-3}$ at 25°C)	Boron ppm	Percent sodium	Constituents (parts per million)			
										Na + K	Bicarbonate + Na	Chloride + Mg	Magnesium (Mg)
B-6i-H-7	City of Beverly Hills, La Cienega Well 1, Beverly Hills; 200 feet S. of Chilton Way, 50 feet W. of La Cienega Blvd., Use: Municipal. Casing: 14 inches. Perforated 156-171; 206-354; 258-271.	2623B	146	*290	(d)	4/26/31	-----	-----	-----	470	200	b27	-----
B-6k-H-6	City of Beverly Hills, Roxbury Park Well 2, Beverly Hills; 200 feet S of Olympic Blvd., 25 feet W. of Roxbury Drive, Use: Irrigation. Casing: 12 inches. Perforated 318-450.	2594B	225	*450	1618	12/22/32	472	1.21	29	396	1,363	171	0
B-11e-H-7	Beverly Hills Ice & Cold Storage Co. Beverly Hills; 230 feet N. of 3d St., 210 feet W. of Maple Drive, Use: Industrial. Casing: 12 inches. Gravel 162-170; 171-173; 175-180; 448-462; 504-520; 532-542.	2602C	230	*576	386	10/2/31	64.8	0.95	34	229	36	95	3
B-11f-G-7	City of Beverly Hills, NE. of Beverly Hills; 65 feet N. of Harratt St., 150 feet W. of Palm Ave. Use: Municipal. Casing: 12 inches. Gravel 172-180.	2611	300	*270	387	10/2/31	91.3	1.01	67	333	105	38	6
B-12-H-7	Admiral Creamery Co. S. of Beverly Hills; 200 feet W. of La Cienega Blvd., 200 feet S. of 18th St. Use: Not used. Casing: 16 inches. Perforated 194-250. Sampled at 65, 200 and 320-foot depths respectively.	2625	100	*x362	(v)	3/5/32	-----	-----	-----	263	43	-----	-----
B-12a-I-7	Pacific Western Oil Co. E. of Culver City; 150 feet W. of Moynier Lane, 80 feet N. of southern branch of Ballona Creek. Use: Domestic and industrial. Casing: 12 inches. L. A. D. of W. & P. No 22-C-16.	2626A	82	x720	(b)	3/30/31	-----	-----	32	214	48	50	41
B-12d-I-7	Shell Oil Co. E. of Culver City; 25 feet E. of Moynier Lane, 400 feet N. of Senatus crossing of P. E. Ry. In pump station yard of Shell Oil Co. Use: Domestic and industrial. Casing: 14 inches.	2627	95	(x)	(*)	11/12/31	-----	-----	429	256	453	293	43
B-12e-I-7	American States Water Service Co. E. of Culver City; 30 feet E. of Senataey Ave.; 300 feet S. of Jacob St. Trainer-covered pit. Use: Not used. Casing: 12 inches. Sampled at 85-foot depth.	2627A	85	-----	(v)	3/1/32	-----	-----	434	250	442	254	2
B-12f-I-7	City of Beverly Hills, Castle Tract Well 2, E. of Culver City; 500 feet S. of Adams Blvd., 150 feet E. of Spaulding St., 500 feet E. of Moyair Lane at end of Jefferson and Adams Bivis storm drains. Use: Municipal. Casing: 26 inches. Perforated 200-294.	2636	82	*317	(v)	3/1/32	-----	-----	445	254	448	248	5
B-12g-I-7	American States Water Service Co., Plant 5, NE. of Culver City; 200 feet S. of Washington Blvd., 60 feet E. of Senataey Ave. Use: Municipal. Casing: 30 inches. Perforated 152-160; 174-199; 214-266.	2636D	88	*266	(u)	4/20/31	-----	-----	295	96	332	78	-----
B-12f-H-7	City of Beverly Hills, La Cienega Well 2, S. of Beverly Hills; 500 feet N. of Venice Blvd., 50 feet W. of La Cienega Blvd. Use: Municipal. Casing: 26 inches. Perforated 120-150; 193-260; 278-300.	2636E	94	*340	(d)	4/20/31	-----	-----	354	86	b45	160	b100
B-12g-I-7	M. Moynier, Well 1, E. of Culver City; 1,200 feet S. of Higuera St., 200 feet W. of Moyner Lane. Use: Irrigation. Casing: 12 inches. Perforated 50-80.	2628	119	*120	385	10/2/31	469	0.64	35	448	1,243	290	0
B-13e-I-7	M. Moynier, Well 2, E. of Culver City; 650 feet S. of Higuera St., 200 feet W. of Moyner Lane. Use: Domestic. Casing: 14 inches. Perforated 20-38. Sample for D. W. R. Lab. No. 184 was dipped from open casing.	2628A	105	*237	(v)	10/22/31	539	0.53	58	204	1,677	30	0
B-13e-I-7	M. Moynier, Well 2, E. of Culver City; 1,200 feet S. of Higuera St., 200 feet W. of Moyner Lane. Use: Irrigation. Casing: 12 inches. Perforated 50-80.	2628A	105	(e)	3/1/32	-----	-----	342	207	144	2,024	390	2,095

TABLE 8. WELLS IN LOS ANGELES AREA—Continued

Well number	Location and description	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)								
						Specific electrical conductance ($K \times 10^{-4}$ at 25°C)	Boron ppm	Percent sodium $\text{Na} \times 10^{-4}$ $\text{Ca} + \text{Mg}$ + Na	Chloride radicle (Cl)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Magnesium (Mg)	Sodium (Na)	
B-13g-I-7	Mr. Collins, E. of Culver City; 250 feet S. of Higuera St., 80 feet W. of Lenwee Ave. Use: Irrigation. Three-foot dug well.	627G	97	26	(e) 884 (e) 429/32	3/1/32 3/23/32 4/29/32	0.45 1.477	20	448 5.414 5.382	0	1,390	724	724	
B-13h-I-7	Mr. Collins, SE. of Culver City; 1,300 feet S. of Higuera St., 150 feet W. of Lenwee St. In pump house in back of large white stucco residence. Use: Domestic. Three-foot dug well.	2638B	127	25	(e) 3/1/32 4/29/32	0.45 1.477	20	434	352 728 366 650	0	1,390	724	724	
B-14-G-8	Home Ice & Cold Storage Co., Hollywood; 80 feet E. of La Brea Ave., 175 feet N. of Santa Monica Blvd. Use: Industrial. Casting: 12 inches, in 20-foot concrete pit. Perforated 100-110.	2650	289	*x110	388	10/ 2/31	87.8	0.29	60	238	130	55	6	
B-15g-I-8	Blue Bird Laundry, Los Angeles; 400 feet E. of Crenshaw Blvd., 150 feet N. of Exposition Blvd. Use: Laundry supply.	2667B	110	-----	1,273	8/ 8/32	51.0	0.84	50	204	36	42	2	
B-16-I-8	Los Angeles Investment Co., E. Irrigation Well, Los Angeles; 100 feet N. of 48th St., 90 feet W. of 4th Ave. Use: Formerly irrigation, not used for domestic or municipal purposes. Casing: 12 inches. Perforated 30-48; 66-75. First operation of three wells after two years' absence. Test run to develop present character of water. Sample is composite of three wells, B-16-I-8, B-16a-I-8, and B-16b-I-8, which are inter-connected but can be operated separately by use of valves installed.	2679	128	x300	382	10/ 2/31	190	0.14	18	375	355	141	6	
B-16e-I-8	Los Angeles Investment Co., Los Angeles; 175 feet N. of 48th St., 90 feet W. of 4th Ave. Use: Municipal. Casing: 16 inches. Perforated 311-331; 334-347; 362-374; 411-441.	2679C	128	*x608	(f) 383	5/10/28 10/ 2/31	64.4	0.09	26	272 241	131 30	140 87	4	
B-16d-I-8	Los Angeles Investment Co., Los Angeles; 40 feet N. of 48th St., 125 feet W. of 4th Ave. Use: Municipal. Casing: 16 inches. Perforated 410-437; 622-632; 656-658; 666-688; 833-865; 969-973. D.W.R. Lab. No. 451 is a sample from driller's bucket of water from stratum at 622 to 632 feet. L.A.D. of W. & P. No. 22-D-15.	2679D	127	*1015	451 (b) (b) (b) (b) (b) (b)	10/16/31 10/16/31 11/9/31 11/12/31 11/13/31 11/20/31	73.3	0.30	33	183 *230 111 189 14 *236 130	83 7 111 129 35 30 34	108 0 98 129 82 12 83	0	66 0 98 129 19 96 77
B-19f-I-9	California Consumers Co., Well 3, Los Angeles; 180 feet NW. of Hill St., 525 feet SW. of Jefferson Blvd. Use: Industrial (treated before use). Casing: 14 inches. Perforated 360-380.	2728C	195	*408	389	10/ 2/31	73.8	0.11	27	281	44	92	6	
B-21b-H-10	California Consumers Co., Los Angeles; 200 feet S. of 5th St., 515 feet E. of Alameda St. Use: Industrial (treated for ice-making). Casing: 18 inches. Gravel 95-98; 109-114; 110-132.	2765B	258	*266	390	10/ 2/31	119	0.24	32	308	147	162	0	
B-38-J-8	City of Inglewood, Well 7, Inglewood; 1,000 feet N. of Redondo Blvd., 600 feet E. of Prairie Ave. In City Park. Use: Municipal. Casing: 18 inches. Perforated 100-115; 135-159; 177-191; 245-265.	1352	141	*x300	(d)	7/16/31	-----	-----	-----	239	36	b60	-----	
B-38a-J-8	City of Inglewood, Well 8, Inglewood; 1,250 feet N. of Redondo Blvd., 440 feet E. of Prairie Ave. In City Park. Use: Municipal. Casing: 18 inches. Perforated 86-110; 113-149; 182-190; 242-245.	1352A	141	*297	(d)	7/16/31	-----	-----	-----	258	34	b45	-----	
B-38b-J-8	City of Inglewood, Well 9, Inglewood; 1,100 feet N. of Redondo Blvd., 550 feet E. of Prairie Ave. In City Park. Use: Municipal. Casing: 18 inches. Perforated 86-110; 113-149; 182-190; 242-245.	1352B	142	*290	(d)	7/16/31	-----	-----	-----	234	21	b50	-----	
B-38d-J-8	City of Inglewood, Well 11, Inglewood; 1,450 feet N. of Redondo Blvd., 750 feet E. of Prairie Ave. In City Park. Use: Municipal. Casing: 18 inches. Perforated 104-122; 134-187; 246-268.	1352D	147	*1025	(d)	7/16/31	-----	-----	-----	234	29	b60	-----	
B-38e-J-8	City of Inglewood, Well 12, Inglewood; 1,350 feet N. of Redondo Blvd., 700 feet E. of Prairie Ave. In City Park. Use: Municipal. Casing: 18 inches. Perforated 101-115; 122-130; 175-195; 239-260.	1352E	141	*282	(d)	7/16/31	-----	-----	-----	234	30	b60	-----	
B-38f-J-8	City of Inglewood, Well 13, Inglewood; 1,350 feet N. of Redondo Blvd., 950 feet E. of Prairie Ave. In City Park. Use: Municipal. Casing: 18 inches. Perforated 184-207; 246-254.	1352F	152	*300	(d)	7/16/31	-----	-----	-----	234	33	b54	-----	

TABLE 8. WELLS IN LOS ANGELES AREA—Continued

Well number	Location and description	Location number	Elevation ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance ($K \times 10^4$ at 25°C)	Constituents (parts per million)									
								Boron ppm	Percent sodium	Bicarbonate radicle (HCO_3^-)	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Magnesium (Mg)	Sodium (Na)		
B-42B-J-8	City of Inglewood. Inglewood; 60 feet N. of 80th St., 155 feet W. of 10th Ave. Use: Municipal. Casing: 18 inches. Perforated 244-285. Well first perforated at 1,047-1,087 feet. (total depth 1,097 feet). D.W.R., Lab. No. 207 and Los Angeles Testing Lab. on 7/31/31 are analyses of water (dark amber in color) from this stratum, sampled during test run. Well was later sealed up to 321 feet and perforated at 244-285 feet. Later analyses are from the upper stratum. L.A.D. of W. & P. No. 10-B-18.	1373A	233	*321	(^a) 207 (^b) 4/11/32 (^c) 4/12/32	7/31/31 8/3/31 4/11/32 4/12/32	48.8 0.14 102.2 -----	37 18 308 -----	201 75 133 -----	58 0 13 -----	17 66 42 2 33 0	144 *1,254 *1,266 *1,178 *225 2 33 0	0 19 38 7 40 11	16 8 38 7 40 11	8 479 *60 *38 40 11	*441 479 *60 *38	
B-47J-K-8	Los Angeles County. Well 1. SE. of Inglewood; 100 feet S. of 106th St., 0.15 miles W. of Normandie Ave. Use: Domestic.	1395A	223	-----	861	3/28/32	48.8 0.14 102.2 -----	37 18 308 -----	23 75 133 -----	58 0 13 -----	17 66 42 2 33 0	0 19 38 7 40 11	8 48 117 32 43	12 47			
B-50-1-9	City of Los Angeles. Figueroa and Slauson Pumping Plant 1. W. of Vernon; 75 feet N. of Slauson Ave., 100 feet W. of Figueroa St. Use: Municipal. Casing: 12 inches. Perforated 96-126; 406-434; 456-496.	1411	154	*x610	196	8/ 6/31	111.8 -----	26 354 -----	73 165 73 -----	35 35 124 -----	35 35 124 -----	35 35 124 -----	35 35 124 -----	35 35 124 -----	35 35 124 -----		
B-55b-J-9	Goodyear Tire & Rubber Co., Well 3. Los Angeles; 1,250 feet W. of Central Ave. Between ear tracks on Gage Ave. at McKinley Ave. Brick pump house opposite Goodyear Tire & Rubber Co. garage. Use: Industrial. Casing: 18 inches. Perforated 93-125; 133-143; 156-170.	1431	162	*x260	198	8/ 6/31	-----	30 220 -----	23 220 -----	72 0 -----	0 57 -----	0 57 -----	0 57 -----	0 57 -----	0 57 -----	0 57 -----	
B-58d-K-9	American States Water Service Co., Delmar Plant (formerly Los Angeles Water Service Co., Well 4), NE. of Athens; 115 feet S. of 116th Place; 700 feet E. of San Pedro St. Use: Municipal. Perforated 165-175; 301-319; 380-425.	1437B	120	*x549	197	8/ 6/31	55.6 -----	30 220 -----	23 220 -----	72 0 -----	0 57 -----	0 57 -----	0 57 -----	0 57 -----	0 57 -----	0 57 -----	
B-59k-L-9	H. Hellmers, W. of Compton; 180 feet N. of Rosecrans Blvd., 250 feet E. of Avalon Blvd. Use: Irrigation. Casing: 14 inches. Gravel 136-140; 173-178; 279-300; 312-338; 348-356.	1439E	118	*362	200	8/ 6/31	47.0 -----	37 217 -----	20 217 -----	38 0 -----	0 41 -----	0 41 -----	0 41 -----	0 41 -----	0 41 -----	0 41 -----	
B-62c-J-9	City of Los Angeles. Green Meadows Well 1. W. of Watts; 55 feet E. of Wadsworth Ave.; 75 feet N. of 99th St. Use: Municipal. Casing: 16 inches. Perforated 305-333; 337-552.	1445B	118	*x620	201	8/ 6/31	60.2 -----	27 235 -----	27 235 -----	81 2 -----	2 65 -----	2 65 -----	2 65 -----	2 65 -----	2 65 -----	2 65 -----	
B-65b-J-10	Pioneer Paper Co., Vernon; 15 feet S. of 55th St., 950 feet E. of Alameda Ave. Use: Industrial. Casing: 16 inches. Perforated 77-96; 284-306; 315-328; 426-482; 495-510.	1460B	183	*531	199	8/ 6/31	61.8 -----	28 235 -----	27 235 -----	90 2 -----	2 65 -----	2 65 -----	2 65 -----	2 65 -----	2 65 -----	2 65 -----	
B-66a-J-10	American States Water Service Co., Well NL, SW. of Huntington Park; 90 feet N. of Nalon St., 70 feet E. of Walout Drive. Use: Municipal. Casing: 14 inches.	1463	142	x195	205	8/ 6/31	102.2 -----	25 305 -----	25 305 -----	66 156 -----	66 156 -----	21 114 -----	21 114 -----	21 114 -----	21 114 -----	21 114 -----	21 114 -----
B-66e-J-10	Walnut Park Mutual Water Co., Well 4, S. of Huntington Park; 40 feet S. of Florence Ave., 245 feet E. of Santa Fe Ave. Use: Municipal. Casing: 20 inches. Perforated 928-1,600.	1472A	157	*x1600	204	8/ 6/31	56.7 -----	29 226 -----	23 226 -----	80 0 -----	0 60 -----	0 60 -----	0 60 -----	0 60 -----	0 60 -----	0 60 -----	0 60 -----
B-66f-J-10	Walnut Park Mutual Water Co., Well 2, S. of Huntington Park; 145 feet S. of Florence Ave., 500 feet E. of Santa Fe Ave. Use: Municipal. Casing: 12 inches.	1472D	157	666	203	8/ 6/31	69.6 -----	27 250 -----	34 250 -----	96 21 -----	21 75 -----	1 60 -----	1 60 -----	1 60 -----	1 60 -----	1 60 -----	1 60 -----
B-69e-K-10	City of Compton. Well 3. Compton; 30 feet N. of Hatchway Ave., 700 feet W. of Avanle St. Use: Municipal. Casing: 12 inches.	1469A	77	x350	152 (^d)	7/22/31 7/14/32	57.2 -----	32 220 -----	23 220 -----	81 b50 -----	1 b50 -----	-----	-----	-----	-----	-----	-----
B-69h-L-10	City of Compton. Well 2. Compton; 60 feet W. of Tamind St., 100 feet S. of Orange St. Use: Municipal. Casing: 12 inches.	1479	71	350	(^e)	7/14/31	-----	-----	232 25 -----	232 25 -----	232 25 -----	232 25 -----	232 25 -----	232 25 -----	232 25 -----	232 25 -----	
B-70-1-10	Mr. Winger, Vernon; 350 feet W. of Boyle Ave. (State St.), 275 feet S. of Fruitland Ave. Use: Domestic. Casing: 8 inches.	1480	185	x180	848	3/23/32	125 -----	0.24 -----	24 278 -----	69 184 -----	133 141 -----	38 38 -----	38 38 -----	38 38 -----	38 38 -----	38 38 -----	38 38 -----
B-70b-J-10	City of Huntington Park. Well 4. Huntington Park; 340 feet S. of Slauson Ave., 75 feet E. of Miles Ave. (Sodo St.). Use: Municipal. Casing: 18 inches.	1481	176	x900	(^f)	7/21/31	-----	-----	273 49 -----	273 49 -----	273 49 -----	273 49 -----	273 49 -----	273 49 -----	273 49 -----	273 49 -----	
B-71-J-10	City of Huntington Park. Well 5. Huntington Park; 25 feet E. of Miles Ave., 55 feet N. of Zoe Ave. Use: Municipal. Casing: 18 inches.	1482	163	x1246	(^g)	7/21/32	-----	-----	229 29 -----	229 29 -----	229 29 -----	229 29 -----	229 29 -----	229 29 -----	229 29 -----	229 29 -----	
-71a-J-10	Bell Water Co., Plant 1, Well 1. W. of Bell; 30 feet E. of U.P.R.R. Perforated 112-130; 250-290.	1492	156	*x636	206	8/ 6/31	57.8 -----	29 25 -----	29 25 -----	76 2 -----	2 59 -----	19 19 -----	19 19 -----	19 19 -----	19 19 -----	19 19 -----	19 19 -----

TABLE 8. WELLS IN LOS ANGELES AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity (K x 10 ⁻³ at 25°C)	Boron ppm	Percent sodium	Constituents (parts per million)			
										Bicarbonate + Na/Mg + Na	Chloride + Na/Mg + Na	Sulfate + Na/Mg + Na	Nitrate + Na/Mg + Na
B-71e-J-10	City of Huntington Park, Well 6, SE. of Huntington Park; 30 feet S. of Florence Ave., 30 feet E. of Salt Lake Ave. Use: Municipal. Casing: 18 inches.	1492B	142	x600	(d)	7/21/32	.....	.....	239	32	b50	.....	.....
B-72e-J-10	City of Southgate, Well 2, Southgate; 35 feet S. of Ardmore Ave., 80 feet E. of Elizabeth St. Use: Municipal. Casing: 12 inches.	1494	122	x690	(d)	7/21/31	.....	.....	210	28	b45	.....	.....
B-72g-K-10	Home Gardens Water Co. (Sidney Smith, owner). Southgate; 20 feet N. of Michigan Ave., 80 feet W. of Elizabeth Ave. Use: Municipal. Casing: 12 inches.	1495B	100	x732	202	8/ 6/31	72.6	.....	271	39	102	0	79
B-73e-K-10	City of Lynwood, Well 2, Lynwood; 80 feet S. of Lynwood Road, 0.14 miles W. of Long Beach Blvd. Use: Municipal. Casing: 16 inches. Perforated 93-135, 314-338.	1497	85	*352	(d)	7/14/31	.....	.....	280	45	b88	.....	.....
B-73e-K-10	Test hole, Lynwood; 5 feet W. of California Ave., 25 feet S. of Century Blvd.	1496	95	12	768	3/ 4/32	336	0.83	61	784	417	672	2
B-75-1-10	Maywood Mutual Water Co., Well 1 of 2, Maywood; 115 feet N. of 56th St., 30 feet W. of Loma Vista Ave. Use: Municipal. Casing: 16 inches. Perforated 362-371; 529-536; 588-597; 808-816; 852-870.	1500	168	*x1,333	(d)	7/14/31	.....	.....	246	34	b28	.....	.....
B-75a-J-10	Maywood Mutual Water Co., Well 2 of 2, Maywood; 175 feet E. of Everett St., 100 feet N. of 60th St. Use: Municipal. Casing: 16 inches. Perforated 210-227; 483-503; 552-564; 839-846; 917-975.	1501	160	*x1,016	(d)	7/14/31	.....	.....	234	29	b57	.....	.....
B-75b-J-10	Maywood Mutual Water Co., Well 1 of 1, Maywood; 200 feet S. of Shausey Ave., 250 feet W. of Girfford St. Use: Municipal. Casing: 12 inches. Perforated 844-850.	1501A	158	*x935	(d)	7/14/31	.....	.....	242	28	b37	.....	.....
B-75f-J-11	Maywood Mutual Water Co., Well 2 of 3, Maywood; 237 feet E. of Heliotropic St., 30 feet S.E. of Riverside Drive. Use: Municipal.	1520A	148	x	(d)	7/14/31	.....	.....	242	45	b35	.....	.....
B-75f-J-11	Maywood Mutual Water Co., Well 3, Maywood; 150 feet E. of Heliotropic St., 140 feet N. of 57th St. Use: Municipal. Casing: 16 inches.	1521	145	x1,298	(d)	7/14/31	.....	.....	244	33	b50	.....	.....
B-76f-J-11	Maywood Mutual Water Co., Well 1 of 3, Maywood; 130 feet head of Filmore St. Use: Municipal. Casing: 12 inches. Perforated 130-134; 150-170; 270-280; 284-285.	1512	142	*x301	(d)	7/14/31	.....	.....	236	29	b32	.....	.....
B-77a-J-10	City of Southgate, Well 3, Southgate; 35 feet S. of Ardmore Ave., 55 feet W. of Otis St. Use: Municipal. Casing: 12 inches.	1504	121	550	(d)	7/21/31	.....	.....	234	30	b45	.....	.....
B-77b-J-11	City of Southgate (formerly Guy Neville) Well 7, NE. of Southgate; 60 feet SW. of U. P. R. R. half way between Atlantic Blvd. and Firestone Blvd. at head of Neville St. Use: Municipal. Casing: 12 inches.	1514	111	650	(d)	7/21/31	.....	.....	224	29	b45	.....	.....
B-78-K-10	City of Southgate, Well 8, Southgate; 165 feet N. of Michigan Ave., 30 feet W. of Kaufman Ave. Use: Municipal. Casing: 12 inches.	1505A	105	x764	(d)	7/21/31	.....	.....	249	27	b23	.....	.....
B-78e-J-10	City of Southgate, Well 5, Southgate; 20 feet W. of Kaufman Ave., 75 feet S. of Southern Ave. Use: Municipal. Casing: 12 inches. Perforated 318-330; 350-362; 614-680; 732-750; 892-904.	1515A	114	*x1,000	(d)	7/21/31	.....	.....	230	52	b45	.....	.....
B-78d-K-11	City of Southgate, Well 9, Southgate; 60 feet E. of Washington Ave., 150 feet S. of Tweedy Blvd. Use: Municipal. Casing: 12 inches.	1515B	105	813	(d)	7/21/31	.....	.....	239	21	b20	.....	.....
B-111d-L-9	J. P. Miller Realty Co. W. of Compton; 2,000 feet W. of Central Ave., 500 feet N. of Riverside-Kedron Blvd. Use: Irrigation. Casing: 12 inches. Perforated 173-195.	840A	105	*250	162	7/23/31	59.1	.....	30	229	27	84	Tr.
B-116e-L-10	City of Compton, Magnolia Plant 4, Compton; 75 feet N. of Magnolia St., 500 feet E. of P. E. Ry.; 100 feet W. of Tamind St. Use: Domestic. Casing: 16 inches. Perforated 689-685.	870	68	*x714	150	7/22/31	50.5	.....	34	220	20	56	Tr.
B-116d-L-10	City of Compton, Magnolia Plant 1, Compton; 50 feet N. of Magnolia St., 110 feet W. of Tamind St. Use: Municipal. Casing: 12 inches.	870A	68	x360	151	7/22/31	50.6	.....	34	217	20	52	13

TABLE 8. WELLS IN LOS ANGELES AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^4$ at 25°C)	Boron ppm	Percent sodium Na $\times 100$ Ca + Mg + Na	Bicarbonate radicle (HCO_3^-)	Chloride radicle (Cl ⁻)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca)	Magnesium (Mg)	Constituents (parts per million)	
B-116n-L-10	Test hole, W. of Compton; on S. line of Olive (Center St.), 50 feet E. of drain, 300 feet W. of Oleander St.	871A	66	8	741	2/15/32	157	0.38	42	479	181	185	6	120	52	168	
B-117-L-10	I. W. Hellman Ranch, SW. of Compton; 100 feet E. of Wilmington Ave., 0.6 miles N. of Victoria St. Casing: 7 inches.	862	97	x	1838	2/8/33	33 9	0.06	53	92	53	0	0	25	5	40	49
B-117a-L-10	G. D. Bufford, Well 2, SW. of Compton; 1.25 miles N. of Victoria St., 300 feet E. of Compton Ave. (Wilmington Ave.). Use: Irrigation. Casing: 16 inches. Perforated 355-360.	862A	125	374	240	8/19/31	50 5	-----	39	204	23	65	0	50	11	49	
B-121f-L-10	Southern California Mausoleum Co., Compton; 100 feet N. of Main St., 25 feet E. of Temple St. Use: Irrigation and domestic. Casing: 12 inches. Perforated 100-136.	890B	70	*142	149	7/22/31	76.7	-----	28	268	46	127	Tr.	86	23	54	
B-121j-L-10	City of Compton, Shinner Tract Well 5, SE. of Compton; 100 feet N. of Shinner St., 100 feet W. of Long Beach Blvd. Use: Municipal. Casing: 18 inches. Perforated 92-132.	891	62	*x199	153	7/22/31	67.5	-----	29	250	34	106	0	76	18	50	
B-122i-L-10	City of Long Beach, N. Long Beach Well 2, SE. of Compton; 200 feet E. of Long Beach Blvd., 800 feet S. of Artesia St. Use: Municipal. Casing: 10 inches.	892C	57	200	84	6/19/31	54 8	-----	33	244	23	56	Tr.	60	15	48	
B-123a-M-10	George Mindrup, S. of Compton; 1,400 feet N. of Delano St., 1,100 feet E. of Alameda St., 1,100 feet W. of P. E. Ry. On W. bank of Compton Creek. Use: Irrigation and domestic. Casing: 12 inches.	884	40	161	154	7/22/31	56.9	-----	36	223	27	72	0	65	9	52	
C-803r-1-12	Montebello Land and Water Co., Well 7, Montebello; 50 feet W. from edge of bluff of Rio Hondo, 30 feet S. of Washington Ave., extended 650 feet E. of Poplar St. Use: Irrigation and domestic. Casing: 20 inches. Perforated 72-110. Well originally 900 feet deep and sealed up to 126 foot depth.	2908	211	*x126	1028	6/ 1/32	50 0	0.16	45	204	39	23	6	39	12	54	
C-803n-1-12	La Merced Heights Land and Water Co., Well 2, Montebello; 700 feet E. of Lincoln Ave. on a line with La Merced Ave., projected, 150 feet N. of C-803v-1-12. Use: Not used. Casing: 12 inches. U. S. D. A. analysis on 3/26/32 is duplicate of D. W. R. Lab. No. 968.	2917A	186	x125	868	3/26/32	189	0.76	45	274	481	35	0	149	37	200	
C-803v-1-12	La Merced Land and Water Co., Old Well 1, Montebello; 700 feet E. of Lincoln Ave. on a line with La Merced Ave., projected, 150 feet S. of C-803n-1-12. Use: Municipal. Casing: 16 inches.	2917B	186	x460	979	5/13/32	220	0.95	48	281	564	35	0	159	36	233	
C-806d-1-12	John J. Germaine, Montebello; 800 feet W. of Lincoln Ave., 200 feet S. of La Merced Ave., extonded. Use: Domestic, public supply. Perforated at about 65 foot depth. Well drilled for oil and converted to water well.	2917D	185	1,300	1018	3/30/32	214	0.93	46	271	467	21	0	148	34	201	
C-806h-1-12	John J. Germaine, E. of Montebello; 0.2 miles E. of turn in Lincoln Ave., 800 feet S. of La Merced Ave., extended. Use: Domestic. Casing: 8 inches.	2917F	185	50	1029	6/ 1/32	71.9	0.29	61	241	67	58	6	41	10	104	
C-807h-1-12	South Montebello Irrigation District, Well 1, Montebello; 0.13 miles S. of Roosevelt Ave., 150 feet E. of First St. (Bluff Ave.), 450 feet N. of Mines Ave., In S. end of pump house in Rio Hondo River bottom. Use: Domestic and irrigation. Casing: 16 inches. Perforated 30-70, 95-103; 112-129; 141-150; 153-157.	2899A	170	*200	(*)	4/ 1/32	-----	-----	-----	193	32	-----	-----	-----	-----	144	
C-808b-1-12	Mr. Burkhardt, Montebello; 120 feet E. of Greenwood Ave., 80 feet S. of Beach St. Use: Domestic. Casing: 5 inches. California Water Service Co., Belvedere Well 19, Montebello; 55 feet W. of Vail Ave., 50 feet N. of Ferguson Drive. Use: Domestic and irrigation. Casing: 12 inches.	1580D	195	x172	1601	4/21/32	75.4	0.13	16	205	89	16	1	93	19	28	
C-809c-1-12		2879B	191	x	(4)	7/13/31	-----	-----	-----	236	33	b21	-----	-----	-----	-----	

TABLE 8. WELLS IN LOS ANGELES AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^4$ at 25°C)	Boron ppm	Percent sediment	Constituents (parts per million)					
										$Na \times 100$ $Cu + Mg$ $+ Na$	Bicarbonate radicle (HCO_3^-)	Sulphate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-834f-J-11	George Peterson, SE. of Bell; 0.14 miles N. of Clara St., Hunt's Crossing Road, 210 feet W. of Perry Road, Use: Irrigation. Casting: 12 inches. Perforated 211-233; 357-361.	1543H	121	*402	141	7/15/31	47.6	-----	30	250	18	4	55	13	38
C-834m-J-11	Tweed-Book, SE. of Bell; 600 feet N. of Hunt's Crossing Road (Clara St.), 800 feet E. of Los Angeles River, Use: Domestic. Casting: 8 inches. Perforated 207-221.	1533D	120	*229	142	7/15/31	224.9	-----	27	290	341	515	2	237	78
C-866d-J-11	Rio Grande Oil Co., Well 1, SE. of Bell; 175 feet S. of S. P. R. R., 450 feet E. of E. bank of Los Angeles River, 1,800 feet W. of Harper St. (Perry Road). Use: Industrial and domestic. Casting: 12 inches. Perforated 482-499.	1534A	109	*575	132	7/15/31	48.3	-----	37	229	25	30	7	48	12
C-902a-I-11	California Water Service Co., Belvedere Well 8, Unit 9, W. of Montebello; 600 feet W. of Brannick Ave., 40 feet S. of Anaheim Telegraph Road, 100 feet N. of Mines Ave. (9th St.). Use: Municipal. Casting: 12 inches. Perforated 163-178; 190-247.	2828A	191	*x250	(d) 391	7/13/31 10/ 3/31	67.6	0.07	29	185	77	b47	14	64	23
C-904a-I-11	Goodrich Tire and Rubber Co., Well 1, W. of Montebello; 500 feet S. of 9th St., 700 feet W. of Gerhard Ave., S. of reservoir and power plant. Use: Industrial. Casing: 16 inches. Gravel 253-266; 272-279; 468-490; 648-657; 708-750. Casing sealed back to 388 foot depth.	2838B	165	*788	393	10/ 3/31	40.9	0.07	41	192	23	20	4	33	12
C-1310-I-10	West Coast Kalsonine Co., N. of Vernon; 350 feet N. of 29th St., 2,000 feet W. of Downey Road, Use: Industrial. Casing: 12 inches. Perforated 148-155; 178-179; 218-233; 269-277; 301-305; 321-332; 336-352.	2788A	201	*401	392	10/ 3/31	89.4	0.16	25	250	59	128	13	96	29

^a Log in files of Division of Water Resources.^x Water levels in files of Division of Water Resources.^a Includes small equivalent quantity of Carbonate (CO_3^{2-}).^b Sulphate (SO_4^{2-}) determined by turbidity method.^c Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.^d Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.^e Analysis by Los Angeles County Flood Control District, Los Angeles.^f Analysis by Los Angeles Testing Laboratory, Los Angeles.^g Analysis by United States Department of Agriculture, Froidoux Laboratory, Riverside, California.^h Analysis by City of Los Angeles, Department of Water and Power Laboratory; Carl Wilson, Director.ⁱ Analysis by City of Long Beach Engineering Laboratory.

TABLE 9. SURFACE WATERS IN LOS ANGELES AREA

Number	Location and description	Location Number	Elevation of ground	Discharge in second feet	Laboratory number	Date	Time of day	Specific electrical conductivity ($K \times 10^4$ at $25^\circ C$)	Constituents (parts per million)					
									Boron ppm	Percent sodium	Bicarbonate radicle $(Na \times 10^6 / Ca + Na)$	Sulfate radicle (SO_4)	Chloride radicle (Cl)	Nitrate radicle (NO_3)
S871-L-10	Compton Creek, W. of Compton. Sampled at S. side of Olive St., 300 feet W. of Oleander St.	S871	65	-	742	2/15/32	-	27.9	0.06	-	98	23	-	-
S883-L-10	Compton Creek pond, S. of Compton. Sampled at bridge across pond, 600 feet E. of Alameda St. at Dominguez junction. Pond is filled with water the year around.	S883	46	-	159	7/22/31	-	174.6	-	52	162	344	222	Tr.
S883A-L-10	Compton Creek, S. of Compton. Sampled at Alameda St. crossing. Discharge from L.A.C.F.C.D.	S883A	50	40	(e)	1/25/33	3.30 p.m.	-	-	50	21	28	Tr.	22
S895-M-10	Los Angeles River, S.E. of Compton. Sampled at Del Amo St. crossing. Discharge from L.A.C.F.C.D.	S895	40	150	(e)	1/25/33	3.00 p.m.	-	-	177	64	153	0	0
S911-L-10	Los Angeles River, E. of Compton. Sampled at Atlantic Blvd. (Olive St.) crossing. Discharge estimated by L.A.C.F.C.D. at time of sampling.	S911	56	0.3	874	4/11/32	-	102	0.42	49	332	105	127	0
S1524-J-11	Los Angeles River, E. of Southgate. Sampled at Compton-Jabotina Road crossing W. of Rio Grande Oil Co. refinery. U.S.D.A. analysis duplicate of D.W.R. Lab. No. 862.	S1524	105	-	862	3/24/32	-	54.3	0.19	56	214	41	44	1
S1525-K-11	Los Angeles River, W. of Downey. Sampled at L.A.C.F.C.D. gaging station 34 at Stewart and Gray Road crossing. Discharge from L.A.C.F.C.D.	S1525	95	1.4	860	4/11/32	10:00 a.m.	69.8	0.65	60	188	6	163	0
S1535-K-11	Mr. Casserini, spring, E. of Culver City. On W. bank of Ballona Creek, 700 feet N.E. of Higuera St. Use: Irrigation.	S2627	50	-	894	3/25/32	-	1403	4.94	52	778	4,083	1,880	0
S2771-G-10	Los Angeles River, NE. of Los Angeles. Sampled at L.A.C.F.C.D. gaging station 55 at Dayton Ave. bridge. Discharge from L.A.C.F.C.D.	S2771	300	700	(e)	1/16/33	7.45 p.m.	-	-	68	14	4	0	32
S2771A-G-10	Arroyo Seco, NE. of Los Angeles. Sampled at L.A.C.F.C.D. gaging station 58 at Avenue 26. Stream joins Los Angeles River 1,800 feet below station. Discharge from L.A.C.F.C.D.	S2771A	310	200	(e)	1/19/33	5.10 p.m.	-	-	56	83	33	Tr.	34
S2774-H-10	Los Angeles River. Los Angeles. Sampled under Aliso St. bridge.	S2774	250	-	1708	1/20/33	-	51.9	0.13	28	131	34	96	7
S2777-I-10	Los Angeles River. Los Angeles. Sampled at S. side of 9th St. bridge.	S2777	210	-	(e)	12/17/32	-	-	-	54	324	226	247	99

^a Includes small equivalent of carbonate (CO_3^{2-}).^b Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.^c Analysis by Los Angeles County Health Department Laboratory and obtained from Los Angeles County Flood Control District.^d Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.

TABLE 10. SURFACE WATERS IN LOWER SANTA ANA RIVER AREA

Number	Location and description	Location number	Elevation of ground	Discharge in second-feet	Laboratory number	Date	Specific electrical conductance ($K \times 10^4$ at $25^\circ C$)	Constituents (parts per million)								
								Boron ppm	Percent sodium	Bicarbonate radicle ($Na \times 100 Ca + Mg + Na$)	Chloride radicle (Cl)	Sulfate radicle (SO_4)	Nitrate radicle (NO_3)			
S1835-K-17	Rodeo Canyon Creek, NE. of Brea; E. of Brea Canyon Road, at Los Angeles County Line.	S1835	495	-----	799	3/10/32	224	0.50	46	631	195	508	0	142	93	284
S1897-K-18	Sequel Canyon Creek, E. of Olinda; just above junction with Carbon Canyon Creek.	S1897	675	-----	801	3/10/32	979	7.23	90	*2,930	1,411	1,156	0	22	133	2,842
S1897A-K-18	Carbon Canyon Creek, NE. of Olinda; 0.5 miles below La Vidia Spring, above junction of Sequel Creek.	S1897A	675	-----	800	3/10/32	539	2.75	89	*2,237	620	455	13	10	73	1,268
S1925-J-18	Hitcher Mineral Springs, SW. of Sleepy Hollow; 0.1 miles NE. of San Bernardino County line; 100 feet S. of Carbon Canyon Creek Road, on N. bank of creek. Use: Domestic and baths.	S1925	850	-----	797	3/10/32	583	1.38	55	1,156	646	1,738	3	95	348	932
S568-P-13	Tile drainage outlet, NW. of Huntington Beach. Sampled at O.C.F.G.D. drainage gaging station 15 at SE. corner of Graham St. and Wintersburg Ave.	S568	4	-----	(b)	6/ 1/32	-----	-----	-----	-----	35	-----	-----	-----	-----	-----
S577-P-14	La Balsa Drainage District, tile drainage manhole, W. of Wintersburg; 200 feet E. of Springfield St. on N. line of Heil Ave. extended. N. branch of tile drains.	S577	9	-----	715	2/15/32	219	0.36	19	192	62	1,977	13	321	82	125
S577A-P-14	La Balsa Drainage District, tile drainage manhole, W. of Wintersburg; 200 feet E. of Springfield St. on N. line of Heil Ave. extended. E. branch of tile drains.	S577A	9	-----	716	2/15/32	113	0.19	-----	162	30	-----	-----	-----	-----	
S585-0-14	Westminster Drainage District, tile drainage outlet, SW. of Westminster at NE. corner of Edwards St. and Balsa Ave.	S585	24	-----	711	2/15/32	332	0.78	-----	860	385	-----	-----	-----	-----	
S589-P-14	La Balsa Drainage District, tile drainage manhole, SW. of Westminster; 0.12 miles E. of Edwards St.; 15 feet S. of Slater Ave. (S589B P-14), 0.5 miles S. of Slater Ave.	S589	5	-----	701	2/ 5/32	126	0.32	-----	235	94	-----	-----	-----	-----	
S589D-P-14	Tile drainage manhole, NW. of Huntington Beach. Sampled at first manhole E. of O.C.F.G.D. drainage gaging station 15 (S589B P-14), 0.5 miles S. of Slater Ave.	S589D	3	-----	(b)	6/ 7/32	-----	-----	-----	246	-----	-----	-----	-----	-----	
S589E-P-14	Tile drainage manhole, NW. of Huntington Beach. Sampled at second manhole E. of O.C.F.G.D. drainage gaging station 15 (S589B P-14), 0.5 miles S. of Slater Ave.	S589E	4	-----	(b)	6/ 7/32	-----	-----	-----	212	-----	-----	-----	-----	-----	
S595-0-14	Tile drainage outlet, SW. of Westminster; 0.75 miles S. of Westminster Ave., 15 feet E. of Golden West St. at NW. corner of Slater Ave. and Golden West St.	S595	30	-----	642	1/19/32	182	0.65	85	802	106	201	13	38	21	439
S599-P-14	La Balsa Drainage District, tile drainage manhole, SW. of Wintersburg; at SE. corner of Slater Ave. and Golden West St.	S599	6	-----	712	2/15/32	134	0.42	-----	454	110	-----	-----	-----	-----	
S14414-O-14	Westminster Drainage District, tile drainage outlet, Westminster; on E. side of Huntington Beach Blvd., 600 feet S. of Westminster Ave.	S14414	42	-----	697	2/ 5/32	107	0.22	-----	134	23	-----	-----	-----	-----	
S14417-P-14	La Balsa Drainage District, tile drainage manhole, N. of Wintersburg; at SE. corner of Huntington Beach Blvd. and Hell Ave.	S14417	24	-----	699	2/ 5/32	60 9	0.18	-----	253	45	-----	-----	-----	-----	
S14464-O-15	Newhope Drainage District, tile drainage manhole 26, S. of Garden Grove; 250 feet E. of Verano St., 15 feet S. of W. 5th St.	S14464	72	-----	670	1/28/32	108	0.24	-----	387	73	-----	-----	-----	-----	
S14464A-O-15	Newhope Drainage District, tile drainage manhole 43, W. of Santa Ana, 1,100 feet W. of Newhope St. on N. line of 17th St. (Westminster Ave.).	S14464A	80	-----	(b)	11/29/30	-----	-----	-----	423	171	-----	-----	-----	-----	
S14465-O-15	Newhope Drainage District, tile drainage manhole 32, S. of Garden Grove; 250 feet E. of Verano St., 15 feet S. of W. 5th St.	S14465	70	-----	(b)	2/24/31	-----	-----	-----	409	110	-----	-----	-----	-----	
S14467-P-15	Newhope Drainage District, tile drainage manhole 26, S. of Garden Grove. Sampled at O.C.F.G.D. drainage gaging station 19, 0.25 miles E. of Verano St., 20 feet S. of Smeltzer Ave.	S14467	54	-----	(b)	11/20/30	-----	-----	-----	388	109	-----	-----	-----	-----	
S14469-P-15	Newhope Drainage District, tile drainage manhole, SE. of Garden Grove; 0.25 miles E. of Verano St., on S. line of Talbert Ave.	S14469	35	-----	(b)	10/19/31	-----	-----	-----	346	80	-----	-----	146	36	

TABLE 10. SURFACE WATERS IN LOWER SANTA ANA RIVER AREA—Continued

Number	Location and description	Location number	Elevation of ground	Discharge in stream, feet	Laboratory number	Date	Constituents (parts per million)								
							Specific electrical conductance ($K \times 10^4$ at 25°C)	Boron ppm	Percent sodium $\frac{Na \times 100}{Cu + Mg + Na}$	Chloride radicle (HCO_3^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
S14473-Q-15	Newport Drainage District, tile drainage manhole 73, SE. of Garden Grove; 0.25 miles E. of Newport St. on S. line of Trask Ave.	S14473	90	.....	(b)	11/28/30	.....	.....	.....	.....	.....	.....	.....	.....
S14474-Q-15	Newhope Drainage District, tile drainage manhole 56, S. of Garden Grove; 0.25 miles W. of Biaro St., 320 feet N. of Hazard Ave.	S14474	78	.....	699	1/28/32	158	0.34	.....	399	138	.....	.....	.....
S14478-P-15	Newhope Drainage District, tile drainage manhole, S. of Garden Grove; 50 feet N. of Wintersburg Ave.; 20 feet E. of Newhope St.	S14478	43	.....	675	1/28/32	168	0.34	40	470	174	205	2	144	51
S14478A-P-15	Newhope Drainage District, tile drainage manhole, W. of Wintersburg. Sampled at manhole 500 feet S. of Wintersburg Ave., 600 feet W. of Newhope St.	S14478A	43	.....	(b)	6/ 7/32	.....	.....	.....	.....	100	.....	.....	.....	173
S14478B-P-16	Newhope Drainage District, tile drainage manhole, W. of Wintersburg. Sampled at manhole 700 feet S. of Wintersburg Ave., 200 feet W. of Newhope St.	S14478B	43	.....	(b)	6/ 7/32	.....	.....	.....	.....	139	.....	.....	.....	.....
S14485-Q-15	Newhope Drainage District, tile drainage manhole 81, S. of Garden Grove, 150 feet S. of W. 5th St., 20 feet W. of Biaro St.	S14485	70	.....	673	1/28/32	144	0.32	.....	451	117	.....	.....	.....	.....
S14487-P-15	Newhope Drainage District, manhole 10, S. of Garden Grove; 0.25 miles S. of Smeltzer Ave., 20 feet W. of Biaro St.	S14487	60	.....	672	1/28/32	143	0.27	.....	378	148	.....	.....	.....	.....
S13233-Q-15	Talbert Drainage District, tile drainage outlet, E. of Huntington Beach; 15 feet E. of Bushard St.; 0.4 miles S. of Adams Ave.	S13233	9	.....	(b)	3/27/31	267	1	0.69	60	1,116	2,275	9	144	71
S13232	.....	.....	.....	.....	676	9/ 3/31	324	0.02	51	1,174	316	400	27	244	432
S13260	.....	.....	.....	.....	696	2/ 5/32	311	0.51	.....	1,095	304	537	178	244	481
S13252-Q-15	Talbert Drainage District, tile drainage outlet, E. of Huntington Beach; 0.5 miles S. of Garfield St. on E. line of Ward St., extended. Outlet of E. branch.	S13252	19	.....	695	2/ 5/32	497	0.65	.....	631	506	.....	.....	.....	.....
S13260-P-15	Newhope Drainage District, tile drainage outlet, NE. of Huntington Beach; 0.15 miles S. of Talbert Ave., 0.25 miles E. of Verano St.	S13260	32	.....	(b)	1/28/30	.....	.....	.....	.....	.....	.....	.....	.....	.....
S557	Open drainage ditch, NW. of Huntington Beach. Sampled at Q, C, F, C, D, gaging station 17 on W. line of Bolsa Chica St., 1700 feet S. of Smeltzer Ave.	S557	13	.....	(b)	1/18/32	131	0.31	43	387	108	198	27	106	39
S589A-P-14	Open drainage ditch, NW. of Huntington Beach. Sampled at E. side of Edwards St., 0.55 miles S. of Silver Ave. and 50 feet S. of point where this ditch joins drainage ditch from E. and passes under road to join main ditch on W. side.	S589A	2	.....	55	6/11/31	380	2	.....	100	.....	.....	.....	.....	147
S589C-P-14	Open drainage ditch, NW. of Huntington Beach. Sampled at O, C, F, C, D, drainage gaging station 15, 200 feet E. of Edwards St., 0.5 miles S. of Slater Ave. Water flows west.	S589B	2	.....	(b)	12/ 3/30	54	6/11/31	.....	.....	294	622	.....	.....	.....
S589C-P-14	Bolsa Drainage District, open drainage ditch, NW. of Huntington Beach. Sampled at O, C, F, C, D, drainage gaging station 3, 1,300 feet S. of Slater Ave., 600 feet E. of Edwards St.	S589C	3	.....	(b)	6/ 1/32	.....	.....	.....	.....	235	146	306	.....	.....
S599A-P-14	Open drainage ditch, NW. of Huntington Beach. Sampled at bridge on Slater Ave., 500 feet W. of Golden West St.	S599A	4	.....	56	6/11/31	53	3	.....	217	41	.....	.....	.....	.....
S599B-P-14	American States Water Service Co., Spring ahead of drainage ditch, NW. of Huntington Beach; 300 feet E. of Golden West St., 750 feet S. of Slater Ave.	S599B	4	.....	(b)	12/ 3/30	57	6/11/31	44	5	217	35	210	20	117
S13215-Q-14	Slough, sp. of Huntington Beach, 100 feet NE. of State (Coast) Highway, 1.3 miles NW. of Bushard St., due NE. of Well C (127+ Q-14). Sampled from running water in slough.	S13215	1	.....	53	6/11/31	5,626	4	.....	244	23,167	.....	.....	.....	.....
S13222-Q-14	Talbert Drainage District, open drainage ditch, E. of Huntington Beach. Sampled at O, C, F, C, D, drainage gaging station 13 at NE. corner of Adams Ave. and Camery St.	S13222	8	.....	(b)	3/27/31	.....	.....	.....	.....	268	218	64	.....	.....
S13222A-Q-14	Talbert Drainage District, open drainage ditch, E. of Huntington Beach. Sampled at O, C, F, C, D, drainage gaging station 14 at NE. corner of Adams Ave. and Newland St.	S13222A	9	.....	(b)	3/27/31	.....	.....	.....	.....	361	570	.....	.....	.....

TABLE 10. SURFACE WATERS IN LOWER SANTA ANA RIVER AREA—Continued

Number	Location and description	Location number	Elevation of ground	Discharge in second-feet	Laboratory number	Date	Constituents (parts per million)					
							Boron ppm	Specific electrical conductivity ($K \times 10^8$ at 25°C)	Percent sodium	Na $\times 100$	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)
S13224-Q-14	Open drainage ditch, SE. of Huntington Beach, Sampled at N.E. corner of Atlanta Ave. and Newland St. (Pennsylvania Ave., extended). Water flows south.	S13224	4	-----	50	6/11/31	703.3	-----	488	1,557	-----	-----
S13224A-Q-15	Open drainage ditch, SE. of Huntington Beach. Sampled at N.E. corner of Cannery St. and Atlanta Ave.	S13224A	5	-----	51	6/11/31	152.1	-----	317	89	-----	-----
S13225-Q-14	Open drainage ditch, SE. of Huntington Beach. Sampled 0.7 miles S. of Atlanta Ave. on line of Cannery St., extended.	S13225	4	-----	49	6/11/31	970.1	-----	275	2,801	-----	-----
S13225A-Q-14	Slough, SE. of Huntington Beach. Sampled from small slough 50 feet W. of its junction with Tallowert drainage ditch, 1.0 miles NW. of Bushard St., 1,000 feet NE. State (Coast) Highway.	S13225A	2	-----	52	6/11/31	7,033.0	-----	-----	238	23,858	-----
S13235-R-15	Open drainage ditch, SE. of Huntington Beach. Sampled 1 mile S. of Atlanta Ave. on E. side of Bushard St.	S13235	0	-----	48	6/11/31	272	-----	570	376	-----	-----
S13242-Q-15	Thibert Drainage District, open drainage ditch. E. of Huntington Beach. Sampled at O.C.F. C.D. drainage station II, at SW. corner of Adams Ave. and Wright St.	S13242	8	-----	(b)	3/27/31 6/1/32	-----	-----	510	264	-----	-----
S13246-R-15	Thibert Drainage District, drainage pumping plant, SE. of Huntington Beach, 1,000 feet SE. of Bushard St., 500 feet NE. of State (Coast) Highway, at end of main drainage ditch.	S13246	3	-----	(c)	3/20/31 3/27/31 8/20/31	-----	262	10,474	-----	-----	-----
S13260B-P-15	Open drainage ditch, NE. of Huntington Beach. Sampled at SE. corner of Ellis Ave. and Verona St.	S13260B	26	-----	244	8/20/31	536.5	-----	61	564	772	1,457
									0	440	1,039	9,381
									0	243	155	914

^a Includes small equivalent quantity of Carbonate (CO_3^{2-}).^b Analysis by Orange County Flood Control District, Santa Ana, California.

TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance ($K \times 10^3$ at 25°C)	Boron ppm	Percent sodium	Constituents (parts per million)						
										Na + Mg Ca + Na	Bicarbonate radicle (HCO_3^-)	Sulfate radicle (SO_4^{2-})	Chloride radicle (Cl ⁻)	Nitrate radicle (NO ₃ ⁻)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-900i-M-13	Steve Luther, W. of Cypress; 200 feet S. of Lincoln Ave., 740 feet W. of Moody St., Use: Irrigation and domestic. Casing: 6 inches. Perforated 154-200.	1056C	38	206	5	5/23/31	45.5	—	35	226	18	36	Tr.	42	13	40
C-900j-M-13	Steve Luther, SW. of Cypress; 75 feet W. of Miller Place, 640 feet N. of Orange Ave. Use: Irrigation. Casing: 6 inches.	1057	40	84	4	5/22/31	45.0	—	34	229	14	29	2	39	15	38
C-900h-N-13	Los Alamitos Sugar Co., Well 12, Los Alamitos: 0.16 miles E. of Los Alamitos Blvd., 25 feet S. of Cerritos Ave. Use: Irrigation.	1029C	25	(x)	(d)	4/10/31	—	—	a218	27	18	—	—	—	—	—
C-900i-N-13	R. Longwell, Los Alamitos; 20 feet S. of Cerritos Ave., 60 feet W. of Los Alamitos Blvd. Use: Domestic. Casing: 2 inches.	1029D	25	x355	(d)	4/10/31	—	—	a250	20	—	—	—	—	—	—
C-909m-N-13	Test hole, N. of Los Alamitos; at SW. corner of Ball Road and Bloomfield Ave. Casing: None.	1038A	29	5	770	3/2/32	1,453	1.28	86	1,552	1,722	5,190	0	190	186	3,555
C-910j-O-12	Hellman Ranch Co. (leased by R. Abney). Seal Beach, 310 feet N. of and 1,100 feet E. of turn to west in Westminster Road at point 0.65 miles NE. of P. E. Ry. Use: Irrigation and domestic. Casing: 12 inches.	515A	16	(x)	(d)	11/10/30	—	—	a168	21	—	—	—	—	—	—
C-910r-O-12	Associated Oil Co., Bryant Water Well; NE. of Seal Beach; 100 feet E. of flood control channel on San Gabriel River, 1.25 miles S. of Anaheim St. (Ocean Ave.), on Associated Oil Co., Bryant lease. Use: Industrial. Casing: 12 inches. Gravel 70-32; 187-214.	504A	4	*740	(e)	10/17/29	—	—	a186	18	—	—	—	—	—	—
C-910w-O-13	Sunset Gun Club, E. of Seal Beach; 0.95 miles W. of Bolsa Chica St., 0.52 miles N. of Schleifer Ave., at club house. Use: Domestic. Artesian well. Casing: 2 inches.	546B	6	200	733	3/3/32	45.3	0.00	25	226	16	37	0	53	14	29
C-910x-O-12	Test hole, NE. of Seal Beach; at SW. corner of intersection of Ocean Ave. and Los Alamitos Blvd. Casing: None.	522D	11	18	776	3/7/32	541	0.61	91	a1,357	391	1,380	0	41	40	1,259
C-910y-O-13	Test hole, E. of Seal Beach; 1.0 miles W. of Bolsa Chica St., 0.5 miles N. of Schleifer Ave., 300 feet W. of C-910w-O-13. Casing: None.	546C	6	7	777	3/3/32	121	0.51	59	723	62	13	0	64	31	190
C-911a-O-13	N. R. Yorba, NE. of Seal Beach; 220 feet S. of Ocean Ave., 310 feet W. of Los Alamitos Blvd.; 4,000 feet W. of Hellman Ave., 30 feet N. of C-911-O-13. Use: Domestic.	522A	12	x247	(e)	6/23/31	—	—	203	14	—	—	—	—	—	—
C-911b-N-13	F. B. Bixby, NE. of Seal Beach; 5 feet S. of Bixby Ave., 10 feet W. of Los Alamitos Blvd. (Norwalk Blvd.). Use: Irrigation and domestic. Casing: 12 inches.	521	14	x903	32	6/6/31	37.9	—	83	a164	14	36	0	10	2	77
C-911g-O-12	Bryant Ranch, N. of Seal Beach; 300 feet E. of San Gabriel River channel, 0.3 miles S. of Ocean Ave. Use: Domestic and stock. Casing: 10 inches.	502	7	—	(e)	11/12/31	—	—	188	20	—	—	—	—	—	—
C-912c-O-13	Hellman Ranch, S. of Los Alamitos; 30 feet S. of Ocean Ave., 25 feet W. of Bolsa Chica St. Use: Irrigation.	552	20	(x)	31	6/6/31	45.4	—	36	214	18	39	Tr.	47	11	43
C-912e-O-13	Hellman Ranch, SW. of Los Alamitos; 0.25 miles E. of Moody St., 50 feet S. of Bryant Ave. Use: Abandoned. Casing: 4 inches.	544	14	x915	33	6/6/31	35.7	74	a155	14	35	0	14	4	69	
C-912p-N-13	Bryant Ranch, SE. of Los Alamitos; 15 feet S. of Bryant Ave., 180 feet W. of Moody St. Use: Domestic and irrigation.	550A	29	(x)	(d)	4/13/31	—	—	a140	16	89	—	—	—	—	—
C-912n-N-13	Hellman Ranch, SW. of Los Alamitos; 0.25 miles E. of Moody St., 50 feet S. of Bryant Ave. Use: Abandoned. Casing: 4 inches.	550	29	(x)	(d)	6/19/31	—	—	a130	18	—	—	—	—	—	—
C-912p-N-13	Bryant Ranch, SE. of Los Alamitos; 15 feet S. of Bryant Ave., 180 feet W. of Moody St. Use: Domestic and irrigation.	550A	29	(d)	4/10/31	—	—	a226	14	—	—	—	—	—	—	—

TABLE II. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)										
							Specific electrical conductivity ($K \times 10^3$ at 25°C)	Boron ppm	Per cent sodium	Nax 100 Ca + Mg + Na	Sulfate radicle (SO_4^{2-})	Chloride radicle (Cl ⁻)	Nitrate radicle (NO_3^-)				
C-927a-N-14	Artesia Land Co. W. of Stanton; 500 feet S. of Katella Ave., 35 feet W. of Hansen Road. Use: Irrigation.	1093A	54	*1,100	(*) (a) 6/20/31	4/10/31 22	34	223	20	40	Tr.	56	12	45			
C-927b-N-14	Clns. W. Eckert. W. of Stanton; 50 feet W. of Hansen Road; 200 feet N. of Cerritos Ave. (Spring St.). Use: Irrigation and domestic. Casing: 7 inches. Test S. of Birky Ave. 12 inches.	1089	56	*198	6/ 5/31	48.1	34	223	20	40	Tr.	56	12	45			
C-927e-N-14	Birky Ranch, SW. of Stanton; 20 feet W. of Hansen Road, 20 feet S. of Birky Ave. Use: Irrigation and domestic. Casing: 12 inches.	581B	45	*500	36	6/ 5/31	53.0	34	229	28	51	1	62	13	50		
C-927v-N-14	Test hole. W. of Stanton; at SE. corner of Cerritos Ave. and Miller Road. Casing: None.	1079A	43	7	775	3/ 7/32	1,500	1.77	70	1,113	2,308	0	444	455	3,180		
C-948j-L-14	Hemetwood Mutual Water Co. Buena Park; 50 feet S. of 4th St., 65 feet W. of Stanton Ave. Use: Domestic and irrigation. Casing: 12 inches. Perfurated 59-77; 153-156; 219-223; 378-398.	1102C	77	*3400	(*)	4/22/31	232	58	b105	34	34	34	34	34	34		
C-948r-L-14	Orange County Water District No. 2, Well 1. Buena Park; 90 feet S. of 4th St., 65 feet W. of Stanton Ave. Use: Municipal. Casing: 10 inches. Perfurated 10-80; 124-134; 168-180.	1102B	77	*286	(*)	4/22/31	226	35	b34	34	34	34	34	34	34		
C-948s-M-14	Test hole. S. of Buena Park; on S. line of Orangeborpe Ave., 90 feet W. of Western Ave. Casing: None.	1094E	.....	10	774	3/ 7/32	95.1	0.30	43	345	48	122	44	59	38	105
C-950L-M-14	C. H. Hamilton, NE. of Cypress; 320 feet E. of Miller Road, 1,200 feet N. of Crescent Ave. Use: Irrigation. Casing: 12 inches. Perfurated 549-568; 637-656; 687-696; 705-727; 732-740.	1075A	57	*750	8	5/22/31	51.1	.....	33	232	21	53	Tr.	46	16	42
C-950m-M-14	Mr. Note (formerly F. A. Harrington). NE. of Cypress; 800 feet N. of La Palma Ave., 0.6 miles W. of Haven Road. Use: Irrigation. Casing: 12 inches. Perfurated 195-210; 235-246.	1075B	62	*261	24	6/ 4/31	46.7	.....	29	220	20	40	Tr.	52	13	34
C-950v-M-14	Dr. R. D. Temple. E. of Cypress; 640 feet E. of Miller Road, 80 feet N. of Lincoln Ave. Use: Domestic.	1076A	58	.....	7	5/22/31	45.5	.....	34	226	18	31	1	43	14	39
C-968c-L-15	F. W. Emery Estate, Well 1. E. of Buena Park; 150 feet N. of Artesia Ave., extended 1,600 feet E. of Magnolia Ave., 400 feet N. of A. T. & S. F. Ry. Use: Irrigation. Casing: 10 inches. Perfurated 200-400.	1132A	90	*400	(*) (a)	6/ 9/31 6/22/31	79.6	0.14	39	257	43	142	12	69	20	76	e81
C-968d-L-15	F. W. Emery Estate, Well 3. E. of Buena Park; 150 feet N. of Artesia Ave., extended 1,600 feet E. of Magnolia Ave., 400 feet N. of A. T. & S. F. Ry. Use: Irrigation. Casing: 15 $\frac{1}{4}$ inches. Perfurated 100-225; 240-300.	1122B	95	*590	(*) (b)	6/ 9/31 7/31/31	75.3	0.16	37	252	39	126	7	67	20	66	e66
C-970f-K-15	Bastanchury Ranch Co., Red Tank Well 1. SE. of La Habra; 5,120 feet S. of Cedar Ave., 2,670 feet E. of Hiatt St., 2,300 feet W. of State Highway. Use: Irrigation. Casing: 13 inches. Perfurated 275-300; 300-475.	1759	386	*701	(*) (a) (b)	6/ 9/31 6/22/31	105	0.30 0.21	49	277	110	180	0	66	31	e130	
C-970j-K-15	Bastanchury Ranch Co., North Laguna Well 1. SE. of La Habra; 2,915 feet S. of Cedar Ave., 1,780 feet E. of Hiatt St., 2,300 feet S. of Cedar Ave., 2,365 feet E. of Hiatt St., 3,855 feet W. of State Highway. Use: Irrigation. Casing: 15 $\frac{1}{2}$ inches. Perfurated 262-714.	1769	435	*727	(*) (a) (b)	6/ 9/31 6/22/31	128	0.50	64	329	115	189	0	66	28	e167	
C-970n-K-15	Bastanchury Ranch Co., Lemon Mesa Well 1. NW. of Fullerton; 1.0 miles N. of Artesia Ave., extended 1.3 miles E. of Magnolia Ave., extended 1,625 feet E. and 75 feet S. of NW. corner of Sec. 20, T. 3 S., R. 10 W., S. B. & M. Use: Irrigation. Casing: 12 inches. Perfurated 280-800.	1769C	338	*860	(*) (a)	6/ 9/31 6/22/31	123	0.30 0.15	44	331	156	119	0	58	27	e196	
C-971e-L-15	Bastanchury Ranch Co., Lemon Mesa Well 1. NW. of Fullerton; 2,330 feet S. of Cedar Ave., 3,005 feet E. of Hiatt St., extended 1,700 feet S. of State Highway. Use: Irrigation. Casing: 16 inches. Perfurated 280-800.	1141	260	*352	(*)	June 1927	.....	56	225	41	70	37	11	81	35	e125

TABLE II. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)								
							Specific electric conductivity at 25°C.	Boron ppm	Percent sodium	Chloride radicle (Cl)	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)	Calcium (Ca)	Magnesium (Mg)	
C-971-L-15	Bastanchury Ranch Co., Coyote Well 1, NW. of Fullerton; 1.0 mile N. of Artesia Ave., extended .197 miles E. of Magnolia Ave., extended .350 feet E. and .25 feet S. of NW. corner of Sec. 29, T. 3 S., R. 10 W., S. B. & M. Use: Irrigation. Casing: 12 inches. Perforated 162-175; 235-245-348-368.	1141A	255	*x477	(k) (u)	1921 6/ 9/31	- - -	79 82	59 218	70 46	0 244	207 124	0 79	20 44	
C-971-L-15	Bastanchury Ranch Co., Bastanchury Well 4, South Laguna Well 1, N. of Fullerton; 210 feet E. and 202 feet N. of W. 1/4 corner of Sec. 22, T. 3 S., R. 10 W., S. B. & M. Use: Irrigation. Casing: 15½ inches. Perforated 190-541; plugged at 573 feet. Converted oil well.	1150	342	*x3910	(e) (u)	6/ 9/31 6/22/31	131 0	0 23	36 46	252 333	121 124	207 244	0 0	103 79	
C-971m-L-15	Bastanchury Ranch Co., Fullerton Heights Well 1 (formerly Bastanchury Well 6), N. of Fullerton; 2200 feet W. of Spadra Road, 3,800 feet N. of Chapman Ave., 500 feet W. of P. & Ry. Use: Irrigation. Casing: 12½ inches. Perforated 180-750. Converted oil well.	1161	266	*x5202	(e) (b) (b)	6/ 9/31 6/22/31 7/31/31	82 1 79 6	0 0 19	49 49	201 230	85 73	124 113	59 53	22 21	
C-971o-L-16	Bastanchury Ranch Co., Black Hill Well 3 (formerly San Juan Well 3), N. of Fullerton; 2,700 feet E. of Fullerton Road (State Highway), 1,300 feet S. and 1,100 feet E. of the NW. corner of Sec. 22, T. 3 S., R. 10 W., S. B. & M. Use: Irrigation. Casing: 15½ inches. Perforated 145-616; plugged at 745 feet. Converted oil well.	1170B	309	*x4628	(e) (b) (b)	6/23/31 6/22/31 7/31/31	90 6 88 2	0 0 39	54 60	392 336	117 87	71 78	32 30	23 14	
C-971p-L-15	Bastanchury Ranch Co., Black Hill Well 1 (formerly Creek Well 1), N. of Fullerton; 500 feet E. of Fullerton Road (State Highway), 1,500 feet E. and 925 feet N. of center of Sec. 21, T. 3 S., R. 10 W., S. B. & M. Use: Not used. Casing: 24 inches. Perforated 140-80; 140-160; 180-256; 275-315; 335-350; 366-450.	1170C	236	*x451	(k) (i)	1921 10/23/26	- - -	46 84	332 3,267	113 247	216 179	0 0	84 178	35 16	
C-971r-L-15	Bastanchury Ranch Co., Coyote Well 2, NW. of Fullerton; 1.0 mile N. of Artesia Ave., 0.4 mile E. of Magnolia Ave., extended, 30 feet, and 40 feet S. of N. 1/4 corner of Sec. 30, T. 3 S., R. 10 W., S. B. & M. Use: Irrigation. Casing: 16 inches. Perforated 275-656.	1131	283	*x700	(e) (b)	6/ 9/31 6/22/31	74 3	0 0 24	30 78	235 233	68 67	80 84	0 0	22 22	
C-971t-L-15	Bastanchury Ranch Co., Santa Fe Well 3, W. of Fullerton; 1.0 feet S. of Commonwealth Ave., 0.49 miles W. of Euclid Ave., N. of A. T. & S. P. Ry. Use: Irrigation. Casing: 16 inches. Gravel 160-170; 210-290; 310-310-350-380; 385-401; 410-415, 800 feet E. of Euclid Ave., extended 4,200 feet N. of Malvern Ave., S. of N. line of Sec. 28, T. 3 S., R. 10 W., S. B. & M. Use: Irrigation. Casing: 18 inches. Perforated 210-840; shot 380, 500, 525, 550, 575, 600, 625, 675, 700, 725, 750, 800, 850. Converted oil well.	1153C	121	*x3515	(e) (b)	6/ 9/31 6/22/31	101 - - -	0 0 13	21 24	335 314	103 73	205 158	42 42	142 116	30 26
C-971u-L-15	Bastanchury Ranch Co., Valencia Mesa Well 1, N. of Fullerton; 810 feet E. of Euclid Ave., extended 4,200 feet N. of Malvern Ave., S. of N. line of Sec. 28, T. 3 S., R. 10 W., S. B. & M. Use: Irrigation. Casing: 18 inches. Perforated 210-840; shot 380, 500, 525, 550, 575, 600, 625, 675, 700, 725, 750, 800, 850. Converted oil well.	1161A	261	*x6024	(e) (b)	6/ 9/31 6/22/31	99 4 - - -	0 0 14	25 51	270 287	92 99	90 127	12 12	56 56	20 23
C-971v-L-15	Bastanchury Ranch Co., Reservoir Hill Well 1, N. of Fullerton; 200 feet E. of Fullerton Road (State Highway), L1,110 feet E. and 750 feet N. of center of Sec. 21, T. 3 S., R. 10 W., S. B. & M. Use: Irrigation. Casing: 16 inches. Perforated 220-535.	1170D	318	*x640	(e) (b)	6/ 9/31 6/22/31	152 - - -	0 0 48	73 74	348 351	220 50	73 65	0 0	39 91	26 37
C-971w-L-16	Union Oil Co., Well 13, SW. of Brea; 0.3 miles S. from Fullerton; City limits at Fullerton Road (State Highway), then due W. 0.62 mile to cemetery, then S. 0.13 mile. Wells just S. of cemetery. Use: Irrigation. Casing: 20 inches. Perforated 309-327, 396-398; 463-483; 500-514.	1789	329	*653	(b)	7/31/31	0 47	0 0 46	74	332	76	122	0	27	16
C-972n-K-16	Union Oil Co., Well 3, S. of Brea; 50 feet N. of Golden Ave., 100 feet E. of Pomona Ave. Use: Irrigation. Casing: 16 inches. Perforated 260-435.	1749	335	*x635	(j) (k) (l) (m)	Sept. 26 Sept. 26 Oct. 23 June 1931 Oct. 6/22/31	- - - - - - - - - - - - - - -	34 0 26	287 32 254 30 281	135 145 148 137 128	198 215 245 243 242	- - - - - - - - - - - - 1	94 90 123 116 91	44 62 42 40 40	99 106 88 91 123
C-974f-M-16	Anheim Union Water Co., Crowther Well 3, NE. of Anaheim; 200 feet S. of Branthorpe Ave., 50 feet W. of Placentia Ave. Use: Irrigation. Casing: 20 inches. Perforated 98-142; 276-388.	15614A	197	*x390	(e)	6/19/31	71 6 - - -	31	265 - - -	53	68	10	76	21	57
C-974f-M-16	Schouen 2 Water Co., NE. of Anaheim; 95 feet W. of Cypress Ave., 300 feet S. of Placentia and Cypress Avenues Y intersection. Use: Irrigation. Casing: 16 inches.	15615A	186	340	(e)	Oct. 1938	- - - - - -	32	*259 - - -	49	64	6	70	17	52

TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)									
							Specific electrical conductivity ($K \times 10^3$ at 25°C)	Boron ppm	Percent sodium	Boron Na + 100 Ca + Mg + Na	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Chloride radicle (Cl ⁻)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-9740 M-16	Anarion Union Water Co., Crowder Well 6, N.E. of Anaheim; 125 feet W. of Phenix Ave.; 75 feet S. of Orangehorpe Ave.; 25 feet W. of Well 5. Use: Irrigation. Perforated 280-355; 420-455.	15614E	197	*504	78 (4)	6/17/31 2/3/32	...	34	278	59 52	95	9	77	18	62	
C-9741-L-16	Union Oil Co., Well 13, N. of Fullerton; 2,000 feet NW of Brea Blvd; 1,500 feet N. and 125 feet W. of Center of Sec. 22, T. 3 N., R. 10 W., S. 1/4, U.S.C. Use: Irrigation, Casing: 20 inches. Perforated 309-327; 350-398; 463-483; 500-514.	1180A	324	*653	112 (4)	5/29/31 6/1/31	0.58 0.79	57 71	296 373	108 116	167 103	...	Tr 30	48 23	150 187	
C-9750-L-15	C. G. Coggeshall, N. of Anaheim; 500 feet W. of Spadra Road; 100 feet N. of Orangehorpe Ave. Use: Domestic. Casing: 7 inches.	1174	140	(x)	4/17/31	...	...	...	146	271	...	...	...	...	...
C-976a-M-16	City of Anaheim, Well 6, Anaheim; 0.19 miles N. of E. La Palma St., 225 feet W. of Park St., 25 feet W. of Well 7. Use: Irrigation. Casing: 24 inches. Perforated 310-411; 460-483; 510-610.	1185	156	*637	(1)	4/22/31	...	...	252	41	655	...	...	...	...
C-976b-M-16	City of Anaheim, Well 7, Anaheim; 0.19 miles N. of E. La Palma St., 200 feet W. of Park St., 25 feet E. of Well 6, near Anaheim Sugar Co., plant. Use: Municipal. Casing: 24 inches. Perforated 324-415; 480-491; 575-608.	1185A	156	*x642	(1)	7/22/31 8/27/31	62.6	27	244 259	39 38	145 59	4	71	18	42	
C-976c-M-15	City of Fullerton, Well 1, N. of Anaheim; 313 feet N. of La Palma Ave., 122 feet W. of Palm Ave. (Spadra Road). Use: Municipal. Casing: 12 inches. Perforated 310-334; 350-410.	1175D	153	*x424	(1)	4/22/31	...	...	232	30	150	...	...	...	...
C-979p-M-16	Perry Mathis, S. of Anaheim; 35 feet S. of Ball Road; 60 feet W. of S. P. R.R., 0.21 miles E. of Los Angeles St. Use: Irrigation. Casing: 16 inches. Perforated 271-305; 317-401.	1198	150	*407	258	8/27/31	48.7	...	27	a214	27	44	2	56	13	32
C-980a-M-14	D. R. Williams, S. of Buena Park; 100 feet N. of S. P. R.R., 200 feet W. of Magnolia Ave. Use: Irrigation and domestic. Casing: 7 inches.	1124	97	x140	334	9/18/31	93.0	0.19	22	284	83	142	1	116	23	52
C-981s-L-14	Orange County Water Works District 2, Well 2, Buena Park; 75 feet S. of S. P. R.R., 150 feet W. of Grand Ave. Use: Municipal. Casing: 12 inches. Perforated 356-380.	1103B	73	*x396	(1)	4/22/31 6/17/31	53.1	...	32	226	18	135 49	Tr 49	52	19	44
C-982a-M-14	Dr. Lee C. Denning, N. of Stanton; 45 feet W. of Duke Ave.; 200 feet S. of Orange Ave. Use: Irrigation. Casing: 12 inches.	1117A	84	x160	64	6/17/31	45.9	...	28	226	18	25	1	51	13	31
C-983L-M-15	P. A. Stanton, W. of Anaheim; 0.10 miles W. of Brookhurst Ave.; 240 feet S. of Crescent Ave. (Olive St.). Use: Irrigation and domestic. Casing: 16 inches. Perforated 101-105; 229-230; 350-353; 375-385; 402-437; 460-468; 519-520; 630-644; 683-684; 716-740.	1146B	110	*x761	66	6/17/31	58.5	...	28	232	34	56	9	67	14	40
C-984a-N-14	T. W. Clarke, W. of Stanton; 430 feet S. of Cerritos Ave., 100 feet W. of Western Ave.; 10 feet SW. of C-384b N.-14. Use: Domestic and irrigation. Casing: 8 inches.	1099	60	(x)	4/10/31	...	...	...	...	...	...	...	...	...	...	...
C-985a-N-15	Mrs. Anna B. Taylor, 1/2 of Stanton; 350 feet N. of Cerritos Ave., 1,200 feet E. of Magnolia Ave. Use: Irrigation and domestic. Casing: 10 inches.	1128A	84	x170	67	6/17/31	52.9	...	31	238	23	52	1	62	13	42
C-986i-N-15	Chris Schneider, N. of Garden Grove; 160 feet S. of Katella Ave., 1,245 feet E. of Euclid Ave. Use: Irrigation. Casing: 16 inches. Perforated below 300 feet.	1169	119	579	(1)	8/12/25	...	...	21	216	30	55	...	66	13	26
C-986m-N-14	American States Water Service Co., Stanton Well 1, Stanton; 1,400 feet W. of Duke Ave., 120 feet S. of Cerritos Ave. Use: Municipal.	1119B	72	(x)	65	6/17/31	59.6	...	11	244	34	50	1	68	17	14
C-987k-N-15	R. B. Woodside, W. of Garden Grove; 1,000 feet E. of Gilbert Ave., 200 feet N. of Ocean Ave. Use: Irrigation and domestic. Casing: 12 inches.	14432	75	167	16	5/23/31	61.4	...	29	235	39	62	11	66	15	42
C-987L-O-14	J. E. Webber, N. of Westminster; 0.25 miles W. of S. P. R.R., 100 feet S. of Ocean Ave. Use: Not used. Sampled from standing water. Casing: 7 inches.	592A	50	x268	(4)	2/28/31 3/27/31 (1)	6/19/31	...	...	...	...	...	...	...	...	...

TABLE II. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^4$ at 25°C)	Boron ppm	Percent sodium	Constituents (parts per million)				
										Boron $\frac{Na \times 10}{Ca + Mg + Na}$	Bicarbonate radicle (HCO_3^-)	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)
C-987m-N-14	Pete Page, N. of Westminster; 400 feet E. of S. P. R. R., 1,000 feet N. of Ocean Ave. Use: Not used. Sampled from standing water. Casing: 7 inches.	14402A	57	(x)	(d)	2/28/31 (d) 3/27/31 (d) 6/19/31	...	...	a220 226 228	20 12 18	...	...	...	...
C-987n-O-14	Owner unknown. N. of Westminster; 0.25 miles S. of Ocean Ave., 700 feet E. of Golden West St., near 6-foot concrete standpipe 20 feet N. of galvanized-pipe house. Use: Not used. Sampled from standing water. Casing: 12 inches.	593B	48	x517	(d)	2/28/31 (d) 3/27/31 (d) 6/19/31	...	...	494 499 499 a127	29 27 21	...	...	...	...
C-987h-N-15	Ben Day, NW. of Garden Grove; 0.10 miles S. of Chapman Ave., 150 feet E. of Gilbert Ave. Use: Irrigation and domestic. Perforated 42-158.	14431B	83	*165	312	9/17/31	68.9	0.07	259	44	...	...	...	...
C-987z-N-15	F. W. Soest, NW. of Garden Grove; 600 feet W. of Gilbert Ave., 100 feet N. of Chapman Ave. Use: Domestic. Casing: 4 inches, perforated 80-90.	14431D	80	93	313	9/17/31	50.7	0.07	235	20	43	0	59	113
C-988a-O-15	N. M. Clinton, E. of Westminster; 150 feet W. of Cannery St., 400 feet S. of Westminster Ave. Use: Domestic and irrigation. Casing: 10 inches. Perforated 135-150.	14424A	55	x153	315	9/17/31	55.4	0.07	223	30	53	9	62	13
C-988h-N-15	C. N. Jones, W. of Gardeo Grove; 1,000 feet W. of Magnolia Ave., 500 feet N. of Ocean Ave. Use: Domestic and irrigation. Casing: 8 inches. Perforated 74-90.	14422C	68	94	314	9/17/31	55.4	0.12	247	23	56	0	66	13
C-989h-O-14	R. F. Hazard, SE. of Westminster; 0.22 miles E. of Huntington Beach Blvd., 690 feet S. of Bolsa Ave. Use: Irrigation. Casing: 10 inches. Gravel 70-85; 105-125; 365-385.	14415	34	*402	9	5/23/31	55.3	...	28	223	34	54	4	61
C-989k-O-14	R. F. Hazard, SE. of Westminster; 299 feet S. of Bolsa Ave., 1,150 feet E. of Huntington Beach Blvd. Use: Domestic. Casing: 8 inches.	14415A	35	80	6	5/23/31	47.1	...	28	220	18	55	Tr.	53
C-990b-O-14	Edwards Ranch (Hemstreet, lessor), SW. of Westminster; 75 feet W. of Golden West St., 600 feet S. of Westminster Ave. Use: Domestic. Casing: 6 inches.	594A	34	x60	333	9/18/31	47.2	0.18	238	16	34	0	54	12
C-491a-O-13	West Shore Gun Club, E. of Seal Beach; 50 feet S. of Bolsa Ave., 50 feet W. of road 1.0 miles W. of Bolsa Chica St. Use: Irrigation. Supplies lakes. Casing: 12 inches.	545	7	x900	(d)	11/10/30 2/25/31 6/19/31	...	...	a164 142 a170	20 16 18	...	...	...	...
C-991c-O-13	Blue Wing Gun Club, E. of Seal Beach; 0.25 miles S. of Bolsa Chica St., 75 feet S. of Bolsa Chica St. on Gun Club property. Use: Irrigation. Supplies lakes. Perforated 203-208; 233-240; 237-239.	555B	14	*x320	(d)	11/10/30	...	...	192	20	...	...	...	...
C-991t-O-13	Blue Wing Gun Club, E. of Seal Beach; 250 feet W. of Bolsa Chica St., 75 feet S. of Bolsa Chica Ave. Use: Not used. Flows part time and supplies lakes. Casing: 12 inches.	655A	15	x700	(d)	11/10/30 3/2/31	...	...	a162 a180	18 14	...	...	...	...
C-992m-P-14	Z. D. Crane, W. of Winterburg; 250 feet E. of Springdale St., 150 feet S. of Heil Ave. Use: Domestic. Artesian part of stratum. Open bottom well in first gravel.	577E	7	65	717	2/15/32	43.4	0.10	27	210	16	35	1	51
C-992n-P-14	E. Kettler, W. of Winterburg; 200 feet W. of Springdale St., 75 feet S. of Heil Ave. Use: Not used. Formerly domestic and irrigation, now covered up.	577F	11	300	718	2/15/32	35.1	0.28	80	a158	14	11	0	11
C-992o-P-14	W. G. Lewis, S. of Westminster; 20 feet S. of Sugar Ave., 1,600 feet E. of Golden West St. Use: Irrigation.	596B	26	350	700	2/ 5/32	40.8	0.12	34	294	13	35	0	47
C-993i-P-14	Dibble-Chapman, N. of Winterburg; 315 feet W. of Huntington Beach Blvd., 0.22 miles S. of Snellzter Ave., 50 feet N. of Holt St. Use: Domestic. Casing: 12 inches. Perforated 208-243; 247-258.	14407	26	*263	14	5/23/31	45.3	...	27	210	18	40	1	50
C-995d-P-13	C. A. Brush, NE. of Winterburg; 100 feet W. of Newland St., 550 feet S. of Heil Ave. Use: Irrigation. Casing: 7 inches. Long Beach County Club, W. of Winterburg; 0.22 miles N. of Winterburg Ave., 0.22 miles E. of Graham St. Use: Irrigation and domestic. Casing: 12 inches. Perforated 47-525.	14417C	28	240	695	2/ 5/32	42.9	0.08	28	210	13	38	1	52
C-995d-P-13		578	35	*537	34	6/ 5/31	34.3	...	86	a192	14	9	Tr.	7

TABLE II. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity (K x 10 ⁻³ at 25°C)	Constituents (parts per million)								
								Boron ppm	Percent sodium	Na x 10 ⁶ Ca + Mg + Na (HCO ₃)	Bicarbonate radicle (HCO ₃)	Chloride radicle (Cl)	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-905e-P-14	Mr. Buck, SW, of Wintersburg; 0.3 miles E. of Springdale St., 300 feet S. of Slater Ave. Use: Irrigation. Casing: 10 inches, 600 feet S. of Faber Ave. Cased spring in open field. 1 st sc: Irrigation. Casing: 3 foot pit.	589C	5	x500	(x)	11/7/30 (d) 1/26/31 (d) 3/3/31 (d) 3/20/31 (d) 6/18/31 (d)	11/7/30 (d) 1/25/31 (d) 3/2/31 (d) 3/20/31 (d) 6/18/31 (d) 7/27/31 (d) 8/22/31 (d)	182 20 219 236 285	19 12 14 18	252 249 219 235 256	385 305 292 206	.....	.....	.....	.....	.....
C-905g-P-14	Mr. Slater, N. of Huntington Beach; 300 feet E. of Edwards St., 600 feet S. of Faber Ave. Cased spring in open field. 1 st sc: Irrigation. Casing: 3 foot pit.	13180	2	.....	(x)	11/10/30 (d) 1/25/31 (d) 3/2/31 (d) 3/20/31 (d) 6/18/31 (d) 7/27/31 (d) 8/22/31 (d)	11/10/30 (d) 1/25/31 (d) 3/2/31 (d) 3/20/31 (d) 6/18/31 (d) 7/27/31 (d) 8/22/31 (d)	182 20 219 236 285	19 12 14 18	252 249 219 235 256	385 305 292 206	.....	.....	.....	.....	.....
C-905h-P-13	Sunset Land and Water Co. P. of Sunset Beach; 50 feet N. of Los Patos Ave., 50 feet W. of Algonquin Ave. Use: Municipal. Casing: 6 inches. Perforated 333-357; 384-416.	558	62	*450	(d)	11/8/30 (d) 3/2/31 (d) 3/20/31 (d) 35 6/5/31 (d) 6/18/31 (d) 7/28/31 (d)	11/8/30 (d) 3/2/31 (d) 3/20/31 (d) 35 6/5/31 (d) 6/18/31 (d) 7/28/31 (d)	180 176 176 163 141 146 146 149	30 14 14 14 9	180 176 176 163 141 146 146 149	30 14 14 14 9	Tr.	7	3	63	
C-905j-P-13	Bolsa Chica Gun Club, Pumphouse 1, SE. of Seal Beach; 0.33 miles W. of Springdale St., 45 feet S. of Slater Ave., extended. Use: Irrigation. Supplies lakes. Artesian part of time. Perforated 292-332; 391-396; 724-749; 760-782; 840-848. Use: Domestic. Casing: 8 inches.	569	10	54	(d)	11/7/30 (d) 1/26/31 (d) 3/2/31 (d) 3/21/31 (d) 81 6/19/31 (d) 7/28/31 (d) 8/27/31 (d)	11/7/30 (d) 1/26/31 (d) 3/2/31 (d) 3/21/31 (d) 81 6/19/31 (d) 7/28/31 (d) 8/27/31 (d)	181 178 189 177 186 186 196 189	20 16 16 16 29 13 30	181 178 189 177 186 186 196 189	20 16 16 16 29 13 30	Tr.	36	8	52	
C-905m-P-13	Bolsa Chica Gun Club, Pumphouse 3, SE. of Seal Beach; 0.33 miles W. of Springdale St., 45 feet S. of Slater Ave., extended. Use: Irrigation. Supplies lakes. Artesian part of time. Perforated 292-332; 391-396; 724-749; 760-782; 840-848.	579F	8	*917	(d)	11/7/30 (d) 1/26/31 (d) 3/2/31 (d) 3/21/31 (d) 82 6/19/31 (d) 7/28/31 (d) 8/27/31 (d)	11/7/30 (d) 1/26/31 (d) 3/2/31 (d) 3/21/31 (d) 82 6/19/31 (d) 7/28/31 (d) 8/27/31 (d)	181 178 189 177 186 186 196 189	20 16 16 16 29 13 30	181 178 189 177 186 186 196 189	20 16 16 16 29 13 30	Tr.	36	8	52	
C-905n-P-13	George J. McDonald, E. of Sunset Beach; 0.6 miles S. of Snelzter Ave., 100 feet E. of Bolsa Chica St., 450 feet S. of Heil Ave. Use: Not used. Casing: 10 inches.	557C	18	*200	(d)	6/22/31 7/28/31	6/22/31 7/28/31	1416 1416 343 375 20 20	29 35 18 20 20 20	1416 1416 343 375 20 20	29 35 18 20 20 20	.....	.....	.....	.....	132
C-905n-P-14	Mr. Riuff, W. of Wintersburg; 200 feet S. of Wintersburg Ave., 1.75 feet W. of Springdale St. Use: Irrigation and domestic. Casing: 10 inches. Gravel 120-150; 184-200; 390-446.	578A	8	*x537	(d)	11/7/30 1/26/31 3/2/31 3/20/31 6/18/31 6/23/31 8/27/31	11/7/30 1/26/31 3/2/31 3/20/31 6/18/31 6/23/31 8/27/31	173 173 173 173 173 173 173	18 14 14 14 14 14 14	173 173 173 173 173 173 173	18 14 14 14 14 14 14	.....	.....	.....	.....	.....
C-905o-P-13	Owner unknown, W. of Wintersburg; 400 feet S. of Wintersburg Ave., 30 feet W. of Graham St. drainage ditch. Use: Not used. Flows part time. Casing: 4 inches.	568B	3	(x)	(d)	1/26/31 3/3/31 3/20/31 6/18/31	1/26/31 3/3/31 3/20/31 6/18/31	173 173 173 173	18 18 18 18	173 173 173 173	18 18 18 18	.....	.....	.....	.....	.....
C-905p-P-14	Collins Bros., N. of Huntington Beach; 450 feet N. of Slater Ave., 30 feet W. of Springdale St. Casing in open field. Use: Irrigation. Casing: 14 inches. Perforated 70-82; 306-354.	579B	5	*x354	(d)	1/26/31 3/2/31 3/20/31	1/26/31 3/2/31 3/20/31	197 197 197	16 16 16	197 197 197	18 18 18	.....	.....	.....	.....	.....
C-905u-P-13	Long Beach Country Club, Artesian Well 1. W. of Wintersburg; 125 feet N. of Wintersburg Ave., 600 feet E. of Graham St. Use: Artesian. Supplies lakes. Casing: 3 inches. Impossible to tell from which well water comes as they are interconnected underground. Both wells are same depth and 200 feet apart.	568C	5	100	27	6/5/31	43.5	204	16	38	Tr.	48	11	34		
C-905v-P-13	Long Beach Country Club, W. of Wintersburg; 1,060 feet E. of Graham St., 1,160 feet N. of Wintersburg Ave. Use: Irrigation and domestic. Casing: 4 inches.	578B	26	180	25	6/5/31	40.9	201	16	31	0	42	11	37		
C-905w-P-13	Owner unknown, W. of Wintersburg; 300 feet W. of Graham St., 200 feet N. of Wintersburg Ave. Use: Not used. Casing: 5 inches.	568D	4	10	714	2/15/32	68.9	0.08	183	85	75	1	74	17	45	

TABLE II. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance ($K \times 10^3$ at 25°C)	Constituents (parts per million)					
								Boron ppm	Percent sodium	Boron ppm	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Magnesium (Mg)
C-905aa-P-13	Test hole, W. of Wintersburg; 100 feet N. of Wintersburg Ave., 20 feet W. of Graham St. O. C. F. G. D. surface water test well 37.	568E	4	.....	(d)	12/12/30	.....	.....	145	53	.....	.....	.....
C-997-P-14	A. Steck. N. of Huntington Beach; 100 feet S. of Talbert Ave.; 300 feet W. of Golden West St. Use: Domestic. Casing: 6 inches.	599	57	x110	(d)	11/7/30	.....	.....	188	125	.....	.....	.....
C-997e-Q-14	The Texas Co., Huntington Beach; 90 feet S. of Yorktown St., 20 feet W. of Delaware Ave. Use: Not used.	13202	53	.....	(d)	1/26/31	.....	.....	213	130	.....	.....	.....
C-997g-P-14	A. Steck. N. of Huntington Beach; 100 feet S. of Talbert Ave.; 100 feet W. of Golden West Ave. Use: Domestic. Casing: 6 inches.	599C	56	x110	(d)	1/26/31	.....	.....	220	104	.....	.....	.....
C-997h-Q-14	American States Water Service Co., Well 2 (formerly Well 8). Huntington Beach; 180 feet W. of Huntington Ave., 25 feet S. of Clay St. (Summit Ave.). Use: Not used (formerly municipal). Perforated 80-118.	13201C	48	*276	(f)	4/21/31	.....	.....	224	71	.....	.....	.....
C-997i-Q-14	American States Water Service Co., Well 1 (formerly Well 7). Huntington Beach; 20 feet W. of Huntington Ave., 25 feet S. of Clay St. (Summit Ave.). Use: Not used (formerly municipal). Perforated 100-118; 214-224; 242-254.	13201A	48	*282	(f)	4/21/31	.....	.....	249	64	.....	.....	.....
C-997j-Q-14	American States Water Service Co., Well 4 (formerly Well 10). Huntington Beach; 185 feet W. of Huntington Ave., 80 feet S. of Clay St. (Summit Ave.). Use: Not used (formerly municipal). Gravel 78-126.	13201B	47	*165	(f)	4/21/31	.....	.....	241	64	.....	.....	.....
C-997k-Q-14	American States Water Service Co., Well 3 (formerly Well 9). Huntington Beach; 20 feet W. of Huntington Ave., 180 feet S. of Clay St. (Summit Ave.). Use: Not used (formerly municipal). Perforated 90-111; 208-216; 228-248.	13201D	46	*262	(f)	4/21/31	.....	.....	235	345	.....	.....	.....
C-997u-P-14	Holly Sugar Co., Huntington Beach; 300 feet E. of the east end of Bolsa Ave., 1,200 feet N. of Girfield St. Use: Domestic and industrial.	13191A	60	(x)	468	10/21/31	41.7	0.12	79	*232	16	12	0
C-997v-Q-14	Mr. Turley, Huntington Beach; 20 feet E. of Shmetzer Ave., 200 feet S. of Girfield St. Use: Not used. Casing: 8 inches. Sampled at 100-foot depth.	13191B	75	x208	469	10/21/31	53.7	3.22	37	198	1,757	14	0
C-997w-Q-14	G. LaChapone, Huntington Beach; 80 feet S. of Yorktown St., 25 feet W. of Florida Ave. Use: Domestic and irrigation. Casing: 7 inches.	13202A	60	113	466	10/21/31	40.4	0.08	32	189	20	32	Tr.
C-998d-O-15	L. L. Bauer, E. of Westminster; 100 feet S. of Bolsa Ave., 70 feet E. of Wright St. Use: Domestic. Casing: 7 inches.	14445A	50	x95	316	9/17/31	52.8	0.09	27	235	21	58	0
C-998h-P-14	American States Water Service Co., N. of Huntington Beach; 250 feet E. of Golden West St., 0.18 miles S. of Shatto Ave. Use: Proposed municipal. Casing: 14 inches. Gravel 16-38; 40-85; 171-180; 251-256.	599D	4	*x282	332	9/18/31	41.4	0.11	31	210	16	42	1
C-999b-P-14	Ocean View Mutual Water Co., Wintersburg; 380 feet S. of Winterberg Ave., 820 feet E. of Huntington Beach Blvd., 180 feet E. of B St. Use: Municipal. Casing: 7 inches.	14418	26	.....	10	5/23/31	43.8	.....	31	207	18	36	2

TABLE II. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^6$ at 25°C)	Percent sodium $\text{Na} \times 100$ $\frac{\text{Ca} + \text{Mg}}{\text{Na}}$	Constituents (parts per million)								
									Boron/potassium ($\text{K} \times 10^6$ at 25°C)	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)		
C-999d-P-14	Mr. Brewster, S. of Winterburg; 0.10 miles S. of Slater Ave., 300 feet W. of Huntington Beach Blvd., 100 feet N. of C St., Use: Domestic. Casing: 7 inches.	14419	30	x126	(d)	11/7/30	.....	.....	205	23	206	20	20	18	20		
C-999f-P-14	E. J. McCraven, SE of Winterburg; 100 feet N. of Talbert Ave., 300 feet W. of Newland St. (Pennsylvania Ave.), Use: Domestic. Casing: 12 inches, in bottom of 12-foot pit.	14419A	48	x150	(d)	11/6/30	.....	.....	213	217	213	20	20	18	18		
C-999g-P-14	Mrs. Crutcher, N. of Huntington Beach; 150 feet E. of Huntington Beach Blvd., 500 feet N. of Garland St., Use: Not used since 1930. Casing: 7 inches. Sampled at 60-foot depth.	13211	56	x83	470	10/21/31	75.6	0.22	55	214	220	220	20	1	55	11	
C-999w-P-14	R. E. Machintosh, N. of Huntington Beach; 0.37 miles S. of Ellis St., 200 feet W. of Huntington Beach Blvd., Use: Irrigation. Casing: 10 inches. Gravel 115-125-138-150.	13211B	60	*158	328	9/18/31	43.2	0.12	.....	31	220	223	46	1	55	11	
C-1007d-N-13	Jack Denisch, E. of Los Alamitos; 0.25 miles N. of Cerritos Ave., 20 feet E. of Moody St., Use: Domestic.	1058	32	.....	(d)	4/10/31	.....	.....	168	208	25	25	.....	.....	.....	69	
C-1007e-N-13	Los Alamitos Sugar Co. Los Alamitos; 100 feet N. of Ketella Ave., 25 feet W. of Moody St., Use: Domestic.	1059A	28	.....	(d)	4/10/31	.....	.....	168	25	25	25	.....	.....	.....	39	
C-1073-M-17	Arabian Eucalyptus Water Co., South Well, N. of Olive, 70 feet N. of Corona Del Mar St., 120 feet W. of Downing St., Use: Irrigation. Casing: 18 inches. Perforated 211-225; 243-364; 459-483; 493-510.	15644	211	*x515	(d)	2/10/32	.....	.....	68	.....	.....	.....	.....	.....	.....	.....
C-1078c-M-17	Pilot Water Co. S. of Richfield; 300 feet N. of Norton St. (Corona Ave.) at angle, 400 feet W. of A. T. & S. F. Ry., Use: Irrigation.	15654E	238	(x)	(d)	2/20/32	.....	.....	71	.....	.....	.....	.....	.....	.....	.....
C-1081j-L-18	Anaheim Union Water Co., Holiday Well 2 (formerly Old Well 12), E. of Richfield; 475 feet N. end of Yorba Bridge, 700 feet S. of A. T. & S. F. Ry., 50 feet E. of Yorba Bridge Road. Use: Irrigation. Casing: 18 inches. Perforated 40-90.	15714C	279	*x100	134	7/15/31	85.4	.....	35	293	78	99	6	86	22	77	
C-1081m-L-19	Santa Ana Valley Irrigation Co., Well 6, E. of Richfield; 1,000 feet N. of S. A. V. I. Co. Canal at Mexican seabn. 1,000 feet W. of Santa Ana River, within Horse Shoe Bend, Lower Santa Ana River Canyon. Use: Irrigation.	15762A	350	.....	.....	227	8/13/31	86.5	.....	33	284	87	100	2	85	25	71
C-1082-L-18	Goodwin Mutual Water Co. E. of Richfield; 350 feet S. of A. T. & S. F. Ry., 0.7 miles E. of Richfield Road. Use: Irrigation. Casing: 18 inches.	15683	260	x200	(d)	2/4/32	.....	.....	73	.....	.....	.....	.....	.....	.....	27	.....
C-1085j-L-17	Standard Oil Co. W. of Richfield; 30 feet N. of Placentia-Yorba Blvd., at point 200 feet E. of intersection with A. T. & S. F. Ry. Use: Industrial.	15633E	232	x394	(d)	4/11/32	.....	.....	.....	.....	.....	.....	.....	.....	35	.....	.....
C-1088a-L-16	Mr. Morse, SW. of Placentia; 0.21 miles S. of Placentia-Yorba Blvd., 30 feet W. of dirt road in orange orchard, 0.19 miles W. of Melrose Ave. Use: Irrigation.	15622C	214	x216	(d)	4/11/32	.....	.....	.....	.....	.....	.....	.....	.....	110	.....	.....
C-1096-L-17	Chandler Canfield Midway Oil Co., Plant 2, S. of Olinda; 1,400 feet S. of Citrus Ave., 2,400 feet N. of Yorba Linda Blvd., 500 feet E. of Prospect St., 15 feet E. of A. T. & S. F. Ry. One of three wells. Use: Domestic supply for Olinda.	15660	.....	.....	(d)	5/2/32	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
C-1096b-K-16	City of Brea, Well 1, Brex-0.77 miles SE. of Pomona Ave., 0.13 miles N. of Elm St., 100 feet W. of city limits. Use: Municipal. Casing: 14 inches.	1819A	305	*680	(f)	4/22/31	.....	.....	342	45	b30	.....	.....	.....	.....	.....	.....
C-1096c-K-16	City of Brea, Well 2, Brex-0.77 miles SE. of Pomona Ave., 0.06 miles N. of Elm St., 100 feet W. of Elm St., 15 feet W. of city limits. Use: Municipal. Casing: 18 inches. Gravel 190-192; 208-210; 317-327; 342-348; 450-453; 535-538; 605-611.	1819B	332	*616	(f)	4/22/31	.....	.....	214	48	b20	.....	.....	.....	.....	.....	.....

TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)								
						Specific electrical conductivity ($K \times 10^6$ at 25°C)	Boron ppm	Percent sodium Ca + Na	Chloride radicle (Cl ⁻)	Sulfate radicle (SO ₄ ²⁻)	Nitrate radicle (NO ₃ ⁻)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-1096k-K-18	La Vida Mineral Water Co., La Vida Spring, NE. of Olinda; 1,500 feet N. of Carbon Canyon Road near bottling plant, 1,35 miles SW. of Orange County line, 2.70 miles NE. of main street in Olinda. Use: Domestic.	1906	790	2,035	798	3/10/32	667	5.14	97	3,187	960	0	10	20
C-1096l-K-16	Union Oil Co., Syndicate Well 1, N. of Brea; 200 feet E. of Brea Road, 50 feet S. of Central Ave., extended. Use: Abandoned and filled in. Casing: 17 inches. Perforated 110-300; 42-795.	1806	385	*1,125	(i)	9/12/29	.....	.....	49	423	589	1,181	—	215
C-1096m-K-16	Union Oil Co., Union Well 4, S. of Brea; 100 feet N. of Golden Ave., 4,200 feet E. of Pomona Ave. Use: Irrigation. Casing: 16 inches. Perforated 290-620.	1809	362	*x645	(i)	Sept. '26	.....	.....	72	335	197	27	37	35
					(i)	Oct. '27	.....	.....	62	485	173	43	38	40
					(i)	4/23/31	.....	.....	69	651	229	85	42	45
					(b)	6/22/31	151	0.45	67	665	188	80	0	41
C-1096n-K-16	Union Oil Co., Union Well 7, NE. of Brea; 3,300 feet E. of Pomona Ave., 1,140 feet N. of Deodora St. Use: Irrigation. Casing: 16 inches. Perforated 330-840.	1817A	461	*x930	(i)	Dec. 1927	.....	.....	39	342	103	91	68	35
					(i)	4/23/31	93.9	0.18	39	332	101	73	68	32
					(i)	6/22/31	93.9	0.09	43	342	89	66	17	32
C-1096o-K-17	Union Oil Co., Union Well 8, NE. of Brea; 30 feet S. of Deodora St., at curve in street, 1,500 feet W. of Caroline St., extended. Use: Irrigation. Casing: 16 inches. Perforated 330-750.	1837	471	*x755	(i)	Feb. 1928	.....	.....	40	413	88	191	78	49
					(i)	4/23/31	.....	.....	45	341	106	182	76	49
					(i)	June '31	.....	0.34	51	346	121	138	61	34
					(i)	6/23/31	112	0.18	56	342	112	141	2	30
C-1096p-K-17	Union Oil Co., Union Well 10 (formerly Union Oil Co., Well Nurjanai 10), W. of Olinda; 650 feet N. of Brea-Olinda Road, 0.86 miles W. of Caroline St., 300 feet W. of Valencia Ave. Use: Not used since 1927. Conglomerate 705-1196.	1858	465	*3,255	(i)	4/11/27	.....	.....	44	323	149	400	—	81
					(i)	4/11/32	.....	.....	109	—	—	—	—	72
C-1097-L-17	H. H. Hale, N. of Placentia; 65 feet E. of Valencia Ave., 0.4 miles N. of Yorba Linda Blvd. Use: Domestic.	15640	335	x311	(i)	4/11/32	.....	.....	77	488	153	132	18	32
C-1097a-L-16	Union Oil Co., Union Well 11, NE. of Fullerton; 2,500 feet N. of Pioneer St., extended, 800 feet W. of Cypress Ave., extended, Use: Irrigation. Casing: 10 inches. Perforated 336-800; plugged at 1,635 feet. Converted oil well.	15660	388	*x3750	(i)	June '26	.....	.....	75	435	163	155	16	41
					(i)	Sept. '26	.....	.....	75	625	166	55	20	37
					(i)	April 1931	.....	.....	76	497	153	177	17	37
					(i)	6/15/31	133	0.58	78	532	149	62	15	29
					(i)	7/23/31	0.77	—	78	—	—	—	—	259
C-1097b-L-16	Bastanchury Ranch Co., Amalgamated Well 1, NE. of Fullerton; NP ₂₄ of NP ₄ of Sec. 23, T. 3 S. R. 10 W. S. B. & M. Use: Domestic and irrigation. Casing: 9 inches. Perforated 360-388. Analysis of 10/26/28 is of water found above 310 feet. The 9-inch screw casting was then driven down to case off this water and a perforated liner inserted to produce from the bottom stratum, and later analyses are of water from this stratum.	15660A	380	x388	(i)	10/26/28	.....	.....	54	321	140	120	57	30
					(i)	8/24/29	.....	.....	32	187	30	29	35	16
					(i)	7/31/31	56.6	0.17	45	238	37	59	0	40
C-1097e-L-17	Holly Development Co., Barnettte Well 1, S. of Olinda; 800 feet S. of Golden Ave., 280 feet E. of Rose Drive. Water wasted into Carbon Canyon 1,200 feet S. of Golden Ave.	15650	365	—	—	1,210	7/16/32	606	5.60	—	—	—	—	—
										4,069	405	—	—	—
C-1101-M-17	Section 13 Water Co., E. of Anaheim; 30 feet W. of Rio Vista St., 1,850 feet S. of South St. Use: Irrigation. Casing: 16 inches. Perforated 165-170; 318-340.	15627A	185	*x345	263	8/27/31	69	0.08	31	259	33	65	9	71
C-1124b-M-16	City of Anaheim, Well 3, Anaheim; 125 feet E. of Los Angeles St., 150 feet S. of Santa Ana St., 25 feet W. of Well 4. Use: Municipal. Perforated 290-323.	1187A	149	*x333	(i)	4/22/32	.....	.....	195	46	55	—	—	—
C-1124c-M-16	City of Anaheim, Well 2, Anaheim; 100 feet E. of Los Angeles St., 150 feet S. of Santa Ana St., in red brick pump house, 20 feet W. of Well 1. Use: Municipal. Gravel 86-125; 190-223; 268-329.	1187C	150	*x335	(i)	4/22/31	.....	.....	226	47	55	—	—	—
C-1124h-M-16	City of Anaheim, Well 4, Anaheim; 150 feet E. of Los Angeles St., 150 feet S. of Santa Ana St., 25 feet E. of Well 3. Use: Municipal. Perforated 288-323.	1187C	150	*x335	(i)	4/22/31	.....	.....	232	47	55	—	—	—
C-1130a-N-15	Wm. E. Schaefer, N. of Garden Grove; 0.2 miles E. of Euclid Ave., 0.12 miles N. of Chapman Ave., 8 feet from 10-inch irrigation well in same lot. Use: Domestic. Casing: 7 inches. Passed through water softener for domestic use.	14461A	106	x128	(i)	Nov. '1918 9/17/31	69.7	0.07	31	222	44	40	9	68
C-1130f-N-15	A. D. Smiley, Well 2, N. of Garden Grove; 1,500 feet N. of Chapman Ave., 350 feet W. of Euclid Ave. Use: Irrigation and domestic. Casing: 10 inches. Perforated 155-173; 175-190.	14450	102	*x285	266	8/27/31	82.0	—	22	256	77	94	11	95

TABLE II. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^6$ at 25°C)	Constituents (parts per million)						
								Boron ppm	Percent sodium Na x 100 $\frac{Ca + Mg}{Na}$	Nitrate radicle (NO_3^-)	Sulfate radicle (SO_4^{2-})	Chloride radicle (Cl^-)	Magnesium (Mg)	Sodium (Na)
C-1130b-N-15	A. D. Smiley, Well 1. N. of Garden Grove; 1,500 feet N. of Chapman Ave.; 377 feet W. of Buaro Ave.; 27 feet W. of C-1360 N-15. Use: Not used. Casing: 7 inches. Perforated 122-170; and possibly from 90-105.	14450A	102	170	(4)	Nov. 1918	-	24	244	47	44	2	73	14
C-1154c-O-15	Mrs. A. F. Mills, S. of Garden Grove; 275 feet W. of Verano St., 150 feet S. of Trusk Ave., cased; Use: Irrigation. Casing: 12 inches. Perforated 134-168.	14463A	81	*182	(4)	7/3/31	-	-	220	45	-	-	-	-
C-1157b-N-15	Edward Chaffee, Garden Grove; 0.25 miles N. of Ocean Ave., 200 feet W. of Natwood St., NW of house and just E. of pump house. Use: Domestic and irrigation. Casing:	14452A	85	(x)	(4)	4/14/31 6/22/31	-	-	166 *205	50	-	-	-	-
C-1158-N-16	W. W. Duncan, E. of Garden Grove; 550 feet N. of Ocean Ave., on W. line of Buaro St., extended. Use: Irrigation. Casing: 16 inches. Gravel 90-138; 104-190; 200-212.	14482A	103	*216	297	8/27/31	58.5	28	253	30	52	9	66	15
C-1160-O-16	George R. W. Roberts, SE of Garden Grove; 530 feet E. of Buaro St., 600 feet S. of 17th St. (Westminster Ave.). Use: Domestic and irrigation. Casing: 7 inches.	14484	85	x140	300	9/17/31	85.7	0.08	-	305	59	-	-	-
C-1160d-O-16	W. M. Lacquette, SE of Garden Grove; 100 feet W. of Buaro St., 600 feet S. of 17th St. (Westminster Ave.). Use: Domestic. Casing: 2 inches.	14484E	85	18	310	9/17/31	116	0.17	26	339	94	187	18	124
C-1163a-O-16	F. M. Chinian, SE. of Garden Grove; 50 feet S. of 17th St., 80 feet W. of Berwyn Ave., extended. Use: Domestic, perched water. O. C. F. C. D. surface water Well 218.	14494B	97	20	(4)	9/9/31 1/19/32	187	0.58	51	468	250	27	104	63
C-1163b-O-16	C. L. Coulson, SE. of Garden Grove; 300 feet W. of Berwyn Ave., extended, 100 feet S. of 17th St. Use: Not used. Casing: 5 inches.	14494C	97	14	634	1/14/32	166	0.40	55	723	131	161	Tr.	90
C-1166-O-15	S. D. Teal, S. of Garden Grove; 340 feet E. of Newhope St., 0.26 miles S. of 17th St. (Westminster Ave.). Use: Irrigation and domestic. Casing: 12 inches. Gravel 154-178; 192-211.	14471A	78	*211	13	5/23/31	58.6	27	259	32	53	2	09	15
C-1167e-O-16	M. C. Heacock, W. of Santa Ana; 786 feet E. of Buaro St., 640 feet N. of Sugar Ave. Use: Irrigation and domestic. Casing: 8 inches.	14486	71	x163	15	5/23/31	60.1	28	268	28	57	4	69	15
C-1167k-O-15	State of California, W. of Santa Ana; 270 feet S. of 5th St., 700 feet W. of Newhope St. Use: Irrigation at U. S. G. S. evaporation station.	14475	70	(4)	11/20/30 2/25/31	91.6	-	-	17	*261	57	-	-	-
C-1167l-O-15	H. Brown, W. of Santa Ana; 900 feet W. of Newhope St., 40 feet S. of 5th St. Use: Domestic.	14465C	70	668	1/28/32	77.2	0.12	-	284	55	-	-	-	-
C-1167j-O-16	C. W. Blaackenbecker, W. of Santa Ana; 115 feet W. of Buaro St., 20 feet S. of 5th St., 10 feet N. and 10 feet E. of old recorder well. Use: Domestic. Casing: 6 inches. Perforated 105-115.	14485B	72	115	318	9/17/31 9/9/31	77.6	0.09	23	284	53	89	11	95
C-1167k-O-16	Test hole, W. of Santa Ana; 30 feet S. of 5th St., 155 feet W. of Buaro St., 40 feet W. of C-1167j-O-15. Casing: 10 inches. O. C. F. C. D. surface water Well 217.	14485C	72	x10	(4)	9/17/31 1/18/32	75.3	0.10	-	283	57	89	11	18
C-1168a-O-15	Mrs. A. F. Mills, S. of Garden Grove; 100 feet N. of 17th St. (Westminster Ave.), 100 feet W. of Verano St. Use: Domestic.	14464B	73	20	635	1/19/32	137	0.57	67	342	103	243	44	56
C-1174-P-16	D. C. Powers, W. of Santa Ana; 0.32 miles S. of Smeltzer Ave., 25 feet E. of Buaro St. Use: Irrigation. Casing: 10 inches. Gravel 126-135.	14487A	57	*141	12	5/23/31	55.8	29	238	32	50	6	62	13
C-1202k-P-15	G. M. Henson, E. of Winterburg; 50 feet W. of Newhope St., 120 feet N. of Wintersburg Ave. Use: Domestic.	14478A	43	110	676	1/28/32	45.5	0.08	30	217	18	38	0	50
C-1255-P-15	Mr. Chaney, NE. of Huntington Beach; 50 feet S. of Talbert Ave., 150 feet W. of Ward St. Use: Irrigation and domestic. Casing: 8 inches.	14459	27	x150	(4)	4/9/31 6/17/31	-	-	-	*151 *239	18 35	-	-	-

TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^6$ at 25°C)	Constituents (parts per million)						
								Boron ppm	Percent sodium	Bicarbonate radicle (HCO_3^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca^{2+})	Magnesium (Mg^{2+})	Sodium ($Na^{+}$)
C-1256a-P-15	John E. Brewer, NE. of Huntington Beach; 50 feet W. of Bushard St., 100 feet S. of Talbert Ave. Use: Domestic. Casing: 8 inches.	14439A	24	(x)	(d)	2/25/31	.....	.....	213	31	.....	.....	.....	.....
C-1256b-P-15	Otto Faulkins, NE. of Huntington Beach; 0.27 miles S. of Talbert Ave., 300 feet W. of Bushard St. Use: Domestic. Casing: 6 inches.	13230	22	x150	(d)	3/18/31	.....	4/9/31	*216	27	.....	.....	.....	.....
C-1257-Q-15	H. J. Lamb, NE. of Huntington Beach; 200 feet W. of Bushard St., 0.5 miles S. of Garfield Ave. Use: Domestic. Casing: 7 inches.	13231	12	x150	(d)	11/6/30	.....	11/6/30	*215	25	.....	.....	.....	.....
C-1257-P-14	H. T. Grove, N. of Huntington Beach; 800 feet S. of Talbert Ave., 250 feet E. of Huntington Beach Blvd. Use: Domestic and irrigation. Casing: 7 inches.	13210C	55	x135	(d)	6/17/31	.....	3/17/31	210	16	.....	.....	.....	.....
C-1257v-Q-14	Associated Oil Co., NE. of Huntington Beach; 100 feet S. of Garfield St., 0.35 miles E. of Huntington Beach Blvd., 150 feet E. of boiler plant at Huntington Beach tank farm. Use: Boiler feed and domestic. Casing: 10 inches. Perforated 130-140; 168-182.	13211C	57	*182	59	6/16/31	45.6	0.09	208	16	.....	.....	.....	.....
C-1257w-Q-15	T. Yoshikawa, NE. of Huntington Beach; 100 feet W. of Camry St., 90 feet S. of Garfield St. Use: Domestic. Casing: 3 inches.	13221B	13	90	330	9/18/31	44.4	0.13	216	23	.....	.....	.....	.....
C-1258I-P-15	Orange County, Cities Joint Outfall Sewer District, NE. of Huntington Beach; 100 feet S. of Ellis Ave., 100 feet W. of Verano St., extended. Use: Domestic and sewer plant supply. Casing: 5 inches.	13260A	26	x160	241	8/20/31	45.8	.....	34	210	16	48	1	49
C-1258s-Q-15	Robert Gisher, NE. of Huntington Beach; 600 feet S. of Garfield St., 600 feet E. of Ward St. Use: Irrigation. Casing: 10 inches.	13251B	18	140	694	2/5/32	55.5	0.10	25	244	28	53	4	68
C-1259-Q-14	F. E. Farnsworth, Huntington Beach; 250 feet N. of Indianapolis St., 200 feet E. of Hampshire Ave. Use: Domestic. Casing: 8 inches.	13213C	28	x102	327	9/18/31	40.3	0.10	198	12	.....	.....	.....	.....
C-1259b-Q-14	T. Long, Huntington Beach; 50 feet S. of Hartford St., 130 feet E. of Huntington Ave. Use: Not used. Casing: 7 inches. Sampled at 50-foot depth. Water has H ₂ S odor.	13203C	50	x90	457	10/19/31	48.0	0.28	44	192	60	2	0	35
C-1259c-Q-14	Mr. Renick, Huntington Beach; 100 feet N. of Elmira St., 120 feet E. of California Ave. Use: Not used. Casing: 7 inches. Sampled at 40-foot depth.	13203D	31	(x)	461	10/19/31	52.1	0.25	48	149	98	2	0	37
C-1259d-Q-14	L. W. Cady, Huntington Beach; 100 feet S. of Indianapolis St., 55 feet E. of Delaware Ave. Use: Not used. Casing: 7 inches. Sampled at 40-foot depth.	13203E	33	x130	464	10/19/31	56.9	0.14	54	223	62	24	0	37
C-1259e-Q-14	Mr. Newland, NE. of Huntington Beach; 450 feet N. of Quincy St., 150 feet E. of Hampshire Ave. Use: Domestic. Casing: 16 inches. Perforated above plug at 600 feet. Converted oil well.	13212E	53	x600	467	10/21/31	48.9	0.31	82	311	16	0	0	13
C-1260-Q-14	Thompson Gilliesse, Huntington Beach; 150 feet E. of Hampshire Ave., 50 feet N. of Knoxville St., extended. Use: Domestic. Casing: 7 inches. W. S. P. 137, Well No. 1286, Santa Ana Quaid.	13223	6	(x)	(d)	11/5/30	.....	2/25/31	.....	.....	195	21	.....	.....
C-1260-Q-14	Mr. Newland, E. of Huntington Beach; 0.25 miles W. of Cañery St., 120 feet S. of Indianapolis St. Use: Not used. Casing: 10 inches.	13223	6	x133	465	10/19/31	373	0.08	54	223	14	10	0	31

TABLE 11. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K $\times 10^6$ at 25°C)	Constituents (parts per million)					
								Boron ppm	Percent sodium Na $\times 100$ Ca + Mg + Na	Chloride radicle (Cl)	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)	Magnesium (Mg)
C-1260a-Q-15	Owner unknown. E. of Huntington Beach; 150 feet N. of Indianapolis St., 150 feet W. of Cannery St., on old pickle factory site. Use: Irrigation. Casing: 4 inches.	1323A	8	(x)	(a)	6/22/31	-----	-----	-----	139	139	-----	-----
C-1261-Q-14	Standard Oil Co. (Tessco), Gisler Well 1, E. of Huntington Beach; 0.3 miles W. of Newland St., drainage ditch and 250 feet S. of Atlanta Ave. Abandoned oil well casing with large wooden plug. Use: Not used. Casing: 16 inches. Perforated 100-180. Sampled 10/19/31 at 100-foot depth.	13214	5	*x439	(a)	11/ 5/30	-----	-----	-----	134	134	-----	-----
C-1261b-Q-14	Dave Stewart, Huntington Beach; 150 feet E. of Delaware Ave.; 130 feet S. of Frankfort St. Use: Domestic. Casing: 7 inches.	13203A	30	x144	(a)	1930	-----	-----	-----	111	30	-----	-----
C-1261c-Q-14	Mr. Brown, Huntington Beach; 80 feet N. of Hartford St., 100 feet W. of California Ave. Use: Domestic.	13203B	52	110	(a)	6/25/31	-----	-----	-----	123	34	-----	-----
C-1261d-Q-14	Mr. Thompson, Huntington Beach; 150 feet N. of Quincy St. (Adams St.), 25 feet SE. of Wardlow Oil Well 1, 0.10 miles W. of Hampshire Ave. Use: Not used since April 1931 (formerly domestic).	13212	31	122	(a)	6/17/31	-----	-----	-----	104	32	-----	-----
C-1261e-Q-14	Mrs. Spoonhaer, Huntington Beach; 100 feet W. of Delaware Ave.; 130 feet N. of Lincoln St. Use: Domestic.	13203	32	- - - - -	(a)	6/22/31	-----	-----	-----	123	33	-----	-----
C-1261f-Q-14	Owner unknown. E. of Huntington Beach; 50 feet W. of Hampshire St., 250 feet S. of Indianapolis Ave. Use: Not used. Casing: 8 inches. Sampled from surface of standing water.	13213	5	- - - - -	(a)	6/18/31	-----	-----	-----	100	39	-----	-----
C-1261h-Q-14	Standard Oil Co., Farnsworth Egg Water Well 2A, E. of Huntington Beach; 160 feet E. of Hampshire Ave.; 261 feet N. of Atlanta Ave. Use: Industrial. Casing: 20 inches. Gravel 163-333.	13214B	4	*333	(x)	9/18/31	96.5	0.09	24	195	190	35	0
C-1261w-Q-14	T. S. Ban, (lessee), E. of Huntington Beach; 30 feet S. of Atlanta Ave., 1 mile E. of Lake Ave., 100 feet W. of Newland St. ditch. Use: Domestic.	13224E	5	(x)	320	9/18/31	41.4	0.11	35	204	12	32	0
C-1262a-Q-15	Sam Gisler, E. of Huntington Beach; 450 feet E. of Cannery St., 200 feet N. of Atlanta St. Use: Domestic.	13234	5	- - - - -	(a)	6/25/31	-----	-----	-----	204	13	0	43
C-1262b-Q-15	R. L. Farnsworth, E. of Huntington Beach; 0.25 miles N. of Atlanta Ave., 150 feet W. of Bushard St. Use: Domestic. Casing: 6 inches. Open bottom well.	13233	8	x150	(a)	11/ 6/30	-----	-----	-----	14	14	21	-----
C-1262h-Q-15	Mr. Sasoku, NW. of Newport Beach; 0.37 miles S. of Adams Ave.; 1.5 miles W. of Fairview Ave., between Santa Ana River and the mesa, on E. side of river. Use: Irrigation. Casing: 12 inches. Gravel 169-178; 210-243; 278-286.	13253	15	*303	(m)	1/ 7/32	50.6	0.40	-----	222	21	30	4
					(m)	1/ 26/32	50.6	0.40	-----	249	30	2	5

TABLE II. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)									
							Boron ppm	Specific electric conductivity ($K \times 10^{-4}$ at 25°C)	Percent sodium	Bicarbonate radicle ($\text{Na} \times 100 \text{ Ca} + \text{Mg} + \text{Na}$)	Chloride radicle (Cl)	Nitrate radicle (NO_3)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
C-1262k-Q-15	Mr. Myers, NW of Newport Beach; 1.65 miles W. of Fairview Ave., 500 feet N. of Wilson St., extended between Santa Ana River and the mesa on E. side of river. Use: Irrigation. Casting: 10 inches.	13254A	8	300	655	1/26/32	106	1.12	93	3314	201	0	4	10	3	229
C-1263-Q-14	T. S. Ban (lessee), E. of Huntington Beach; 0.25 miles S. of Atlanta Ave., 400 feet E. of Newland St. Wellpoint on surface water, at recorder well C-1263a-Q-14. Use: Test well. Casing: 1½ inches.	13224C	2	(x)	643	1/19/32	740	...	...	2,432	...	...	...	...	...	...
C-1263a-Q-14	T. S. Ban (lessee), E. of Huntington Beach; 400 feet E. of Pennsylvania Ave., drainage ditch, 0.25 miles S. of Atlanta Ave. Use: Not used. Casting: 12 inches. D. W. R. Lab. Nos. 273 and 450 were sampled 5 feet below top of casing, or just under water surface, and D. W. R. Lab. No. 458 was sampled 100 feet below top of casing. O. C. F. C. D. has automatic water level recorder on well.	13224A	2	(x)	(d)	1/26/31	3/2/31	...	...	175	16	...	...	...	...	...
C-1263b-Q-14	T. S. Ban (lessee), E. of Huntington Beach; 0.2 miles S. of Atlanta Ave., 900 feet E. of Newland St. (Pennsylvania Ave.). drainage ditch, 500 feet E. of C-1263a-Q-14. Use: Not used. Formerly irrigation. Casting: 10 inches.	13224B	3	(x)	(d)	6/8/31	6/8/31	...	...	177	12	...	...	...	...	...
C-1265-Q-15	Mr. Gisler, E. of Huntington Beach; 0.15 miles S. of Atlanta Ave., 0.25 miles W. of Bushard St. Use: Not used, formerly irrigation and domestic. Casting: 6 inches.	13234A	7	x200	(e)	11/6/30	7/25/31	...	...	171	43	...	...	...	...	...
C-1266-Q-15	Laguna Beach County Water District, Well 2, E. of Huntington Beach; 100 feet W. of Bushard St., 800 feet S. of Atlanta Ave. Use: Municipal. Casting: 16 inches. Perforated 98-143.	13234B	8	*x190	(e)	11/7/30	7/25/31	...	...	114	59	...	...	...	...	...
286n-Q-15	Laguna Beach County Water District, Well 1, E. of Huntington Beach; 1,100 feet S. of Atlanta Ave., 100 feet W. of Bushard St., 300 feet S. of C-126-Q-15. Use: Municipal. Casing: 16 inches. Perforated 100-163.	13234K	8	*410	42	6/13/31	6/13/31	...	...	117	59	...	...	...	...	...
C-1268a-Q-15	The Irvine Co., Santa Ana River Well 2, E. of Huntington Beach; 875 feet E. of Bushard St., 1,090 feet S. of Atlanta Ave. Middle well of three. Use: Not used. Casting: 18 inches. Perforated 100-125.	13244B	7	*x155	(k)	Dec. 1, 1927	6/20/31	...	...	207	32	...	...	...	...	...
C-1268b-Q-15	The Irvine Co., Santa Ana River Well 1, E. of Huntington Beach; 950 feet E. of Bushard St., 1,390 feet S. of Atlanta Ave. North well of three. Use: Not used. Casting: 18 inches. Perforated 96-120.	13244C	7	*x262	(k)	Oct. 1927	...	...	...	117	35	...	...	...	...	...
C-1268d-Q-15	City of Newport Beach, Newport Beach Well 4, E. of Huntington Beach; 85 feet E. of Bushard St., 265 feet S. of road which is 0.5 miles S. of Atlanta Ave. Use: Municipal. Casing: 18 inches. Perforated 100-200. Water has H ₂ S odor.	13235C	6	*x234	(d)	11/15/30	3/2/31	...	...	205	26	...	...	...	...	...
					(d)	4/21/31	3/18/31	...	...	214	30	...	...	...	...	...
					(d)	6/6/31	6/17/31	...	...	212	49	...	...	...	...	...
					(d)	7/24/31	7/24/31	...	...	212	50	...	...	...	...	...
					(d)	8/27/31	8/27/31	...	...	228	45	...	...	...	...	...
					(d)	9/18/31	57.8	0.13	40	204	55	...	...	...	...	...
					(d)	11/5/30	12/6/30	...	...	204	55	...	...	...	...	...
					(d)	6/13/31	110.3	...	...	21	0	...	...	...	...	...
					(d)	6/20/31	6/20/31	...	...	22	0	...	...	...	...	...
					(d)	7/24/30	7/24/30	...	...	22	0	...	...	...	...	...
					(d)	8/22/31	9/18/31	117	0.67	244	50	...	...	...	...	...
					(d)	9/18/31	9/18/31	117	0.67	250	50	...	...	...	...	...

TABLE II. WELLS IN LOWER SANTA ANA RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance ($K \times 10^{-3}$ at 25°C)	Constituents (parts per million)				
								Boron ppm	Percent sodium	Bicarbonate + Na	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)
C-1268e-Q-15	City of Newport Beach, Well 6, E. of Huntington Beach; 220 feet E. of Bushard St., 215 feet S. of road which is 0.5 miles S. of Atlanta Ave. Use: Municipal. Casing: 18 inches, perforated 100-142.	13235	6	*330	(f)	4/21/31	.....	.....	214	66	b0	.....
C-1268i-Q-15	City of Newport Beach, Well 5, E. of Huntington Beach; 220 feet E. of Bushard St., 315 feet S. of road which is 0.5 miles S. of Atlanta Ave. Use: Municipal. Casing: 18 inches, perforated 190-260, 276-306, 312-330.	13235B	6	*336	(f)	4/21/31 1/28/32	57.6	0.26	.....	229	48	b18
C-1260-Q-15	Fairview Farms, E. of Huntington Beach; 0.75 miles E. of Bushard St., 150 feet N. of road which is 0.5 miles S. of Atlanta Ave., 300 feet E. of east levee of Santa Ana River. Use: Not used. Casing: 16 inches. Sampled from surface of standing water.	13254	8	(x)	(d) (d) (d) (d) (d) (d) (d)	11/25/30 2/25/31 6/6/31	.....	.....	*511 *507 *536 *564	695 659 670 678	.....	.....
C-1269b-Q-15	Fairview Farms, Well 2, E. of Huntington Beach; 1,450 feet E. of Bushard St., 10 feet S. of road which is 0.5 miles S. of Atlanta Ave., 50 feet W. of C-1269a-Q-15. 20 feet W. of pump house. Use: Irrigation and municipal. Casing: 12 inches.	13245H	7	290	43	6/13/31	826	.....	74	250	142	2
C-1270-Q-15	Fairview Farms, Well 3, E. of Huntington Beach; 1,830 feet E. of Bushard St., 75 feet S. of road which is 0.5 miles S. of Atlanta Ave. Use: Irrigation and municipal. Casing: 18 inches. Gravel 126-267.	13245A	7	*x270	(d) (d) (d) (d) (d) (d) (d)	11/5/30 11/25/30 12/6/30 3/2/31 3/18/31 6/13/31 6/18/31	.....	.....	*256 *274	139 139	0	27
C-1274-Q-14	Negro Colony, 1.3 miles N. of Talbert Road, S. of Huntington Beach; 1.3 miles W. of Bushard St., 100 feet S. of State Highway, on beach in sand, 900 feet W. of bridge. Use: Not used. Casing: 10 inches. Perforated 150-170. Sampled from surface of standing water.	13215	11	*x172	(d) (d) (d)	Jan. 1931 3/3/31 7/24/31	104.5	70	268	209	0	41
C-1274b-Q-14	Globe Petroleum Co., Judd Well 1, SE. of Huntington Beach; 4,957 feet S. and 2,994 feet E. of NW corner of Sec. 13, T. 6 S., R. 11 W., S. B. B. & M., 100 feet E. of Newland St., 100 feet N. of Banning Ave. Use: Not used. Casing: Oil oil casing with nipple and 4-inch tee, 1/4-inch I.D.; gravel 289-340; 664-691; 730-733; 750-757; 811-826. Sampled from surface of standing water.	13225A	4	*x4,980	(d) (d) (d)	6/6/31 6/23/31 7/25/31	.....	.....	*559 *2753 *458	1,661 4,618 3,508	0	41
C-1274e-Q-15	Test hole, SE. of Huntington Beach; 15 feet NW. of Bushard St., 200 feet SW. of turn in Bushard St., 1,500 feet from State (Coast) Highway. Use: None. Total acidity as $CaCO_3$ = 1,560 ppm. H=31 ppm. Iron=5 ppm.	13236	3	11	778	3/4/32	4,980	2.94	81	0	18,194	5,658
C-1278q-Q-15	H. A. De Wolf, E. of Huntington Beach; 1,300 feet E. of Santa Ana River, 30 feet S. of dirt road which is 0.5 miles S. of Atlanta Ave. (road east of river curves to south). Use: Domestic and dairy. Casing: 12 inches.	13255A	10	x68	324	9/18/31	189	0.73	56	327	368	151

^a Log in files of Division of Water Resources.^b Water levels in files of Division of Water Resources.^c Includes small equivalent quantity of Carbonate (CO_3^{2-}).^d Sulphate (SO_4^{2-}) determined by turbidity method.^e Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligrams equivalents and calculated to equivalent quantity of Sodium.^f Analysis by Orange County Flood Control District, Santa Ana, California.^g Analysis by Los Angeles County Department of Public Health, Bureau of Sanitary Engineering.^h Information from H. M. Bergen, Brea, California.ⁱ Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.^j Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.^k Analysis by Shell Oil Co. of California, obtained from owner.^l Analysis by Gulfon-Hanson Laboratory, Los Angeles, and recalculated from compounds by H. M. Bergen.^m Analysis by City of Los Angeles, Biological Laboratory; W. A. Lynch, analyst.

TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER AREA

Well number	Location and description	Elevation of ground	Location number	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance ($K \times 10^4$ at $25^\circ C$)	Boron ppm	Per cent sodium carbonate $Ca + Mg + Na$ $\times 100$	Constituents (parts per million)						
										Chloride radicle (Cl)	Bicarbonate radicle (HCO_3)	Sulfate radicle (SO_4)	Nitrate radicle (NO_3)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
C-240s-I-13	Harriet W. Strong Estate, S. of El Monte; 0.32 miles NW. of Walnut Ave. Use: Irrigation. Casing: 14 inches.	207	x-1080	(4)	9/18/24	.....	.....	15	28	.....	.....	23	18	c11	
C-301b-I-13	UL P. R. R., 0.31 miles SW. of Walnut Ave. Use: Irrigation.	172	*x1080	(4)	4/12/28	.....	.....	21	.....	18	52	.....	62	11	25
C-301d-I-13	City of Whittier, Well 5, NW. of Whittier; 162 feet SW. of Guirado St., Use: Municipal. Casing: 26 inches. Perforated 45-70; 135-142; 150-162; 315-330; 344-362; 362-370; 373-380; 384-390; 625-637.	172	*x541	(4) (c) 127	4/12/28 7/13/31 7/14/31	50 9	.....	22	238	14	48	.....	55	10	c23
C-304a-I-13	City of Whittier, Well 6, NW. of Whittier; 630 feet NW. of Guirado St., 800 feet SW. of Whittier Blvd., 700 feet SW. of Well 5. Use: Municipal. Casing: 20 inches. Perfibrated 6-541.	187	*x1000	(c) (d) 125	12/9/29 7/13/31 7/14/31	45 9	.....	35	20	11	28	.....	38	6	c30
C-304t-I-13	Pico County Water District, Well 1. Pico; 50 feet W. of Church St., 1,000 feet N. of Whittier Blvd. Use: Municipal. Casing: 360; 405-413.	181	*x435	(c) (f) 124	1/22/30 7/14/31 11/25/31	41 5	.....	16	19	17	9	.....	53	9	c19
C-304an-I-13	Z. Brown, NW. of Whittier; 700 feet N. of Strong Ave., extended, 0.09 mile N. of Well C-304a-I-13. Use: Municipal. Casing: 24 inches.	188	x302	(c) 126	7/13/31 7/14/31	38 4	.....	18	195	14	148	.....	53	11	18
C-305z-I-12	S. H. Laughlin, E. of Montebello; 400 feet N. of Beverly Blvd.; 100 feet W. of Lexington Road. Use: Domestic. Casing: 2 inches.	184	40	1040	6/ 6/32	54 6	0 17	34	223	36	40	6	54	12	45	
C-314f-I-13	Mrs. Mary Phelan, NW. of Whittier; 1,690 feet S. of Whittier Blvd., 2,400 feet W. of Norwalk Road. Use: Irrigation. Casing: 18 inches. Perfibrated 158-167; 176-251; 330-362; 473-489.	170	*x509	62	6/ 17/31	51 6	-	23	250	13	38	2	62	15	29	
C-315o-I-13	Joseph Blakely, Los Nietos; 50 feet N. of P. E. Ry., 400 feet W. of Los Nietos Road. Use: Domestic. Casing: 5 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/9/31 are from same sample.	171	x50	(c) 1677	4/21/32 1/10/33	47 4	0 08	19	232	28	38	5	63	14	c23	
C-316v-J-13	Pete G. Martinez, N. of Santa Fe Springs; 85 feet NW. of Santa Fe Springs Road, 2,165 feet N. of Los Nietos Road. Use: Domestic. Casing: 5 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/9/31 are from same sample.	150	100	(c) 1663	6/29/31 11/ 9/31	117	0 13	20	344	51	55	88	3	88	24	c37
C-317a-J-12	H. F. Reinerts, S. of Whittier; 50 feet S. of Mulberry Ave., 300 feet E. of Laurel Ave. Open casing on N. side of tank house. Use: Not used. Casing: 8 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/9/31 are from same sample.	143	x81	(c) 1678	7/14/31 1/ 6/33	77.9	-	19	324	23	129	4	107	22	40	
C-318sd-J-13	J. W. Neimier, E. of Santa Fe Springs; 40 feet W. of Victoria Ave., 0.33 mile NE. of Telegraph Road (Los Nietos Road). Use: Irrigation. Perfibrated 28-48.	150	x50	(c) (c)	Oct., 1918 6/29/31	7/ 1/31 11/ 9/31	144	378	121	117	119	380	106	153	41	105
C-319a-K-13	Colima Tract Water Co., Well 6, E. of Santa Fe Springs; 0.13 mile NW. of Garn Ave., 10 feet NE. of Colima Ave. 0.45 mile SW. of Mulberry Drive. Use: Irrigation. Casing: 14 inches. Perfibrated 170-173; 180-184; 225-226; 230-241; 246-290; 298-305; 308-310; 316-319; 338-342; 344-347; 352-355.	148	*x75	231	8/13/31	178 4	-	39	407	211	256	22	144	60	7,	
C-319b-K-13	Colima Tract Water Co., Well 1, E. of Santa Fe Springs; 0.35 mile SW. of Mulberry Drive, 20 feet SE. of Garn Road. Use: Irrigation. Casing: 18 inches.	145	*x161	(c) 1150	July, 1931 7/ 7/32	185	0 42	46	340	124	55	390	4	106	70	2 0
C-319e-K-13	Colima Tract Water Co., Well 6, E. of Santa Fe Springs; 0.13 mile NW. of Garn Ave., 10 feet NE. of Colima Ave. 0.45 mile SW. of Mulberry Drive. Use: Irrigation. Casing: 14 inches. Perfibrated 170-173; 180-184; 225-226; 230-241; 246-290; 298-305; 308-310; 316-319; 338-342; 344-347; 352-355.	143	*x379	(c)	July, 1931	.....	.....	41	344	232	1,070	.....	264	120	c375

TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER AREA. Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^{-4}$ at 25°C)	Boron ppm	Constituents (parts per million)							
									Per cent sodium ($Na \times 100$)	$Ca + Mg$ ($Ca + Mg + Na$)	Bicarbonate (HCO_3^-)	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca)	Magnesium (Mg)	Sodium ($Na$)
C-819d-J-13	Mr. Johnson, S. of Whittier; 90 feet SW. of Lambert Road, 150 feet NW. of Walnut Ave. Use: Irrigation.	1674	183	x	(^a)	7/17/31	-	-	-	-	-	-	-	-	-	-
C-819j-K-13	Victor Reis, E. of Santa Fe Springs; 0.46 mile SW. of Mulberry Drive, 0.13 mile SE. of Gunn Road, 30 feet SW. of Colma Ave. Use: Irrigation. Casing: 12 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/9/31 are from same sample.	1665 <i>i</i>	152	x150	(^a)	7/1/31	-	-	-	-	342	192	-	-	-	-
C-819k-K-13	J. P. Thompson, E. of Santa Fe Springs; 0.32 mile SW. of Mulberry Drive, 40 feet NW. of Mills Ave. Use: Domestic. Casing: 10 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/9/31 are from same sample.	1665 <i>H</i>	146	108	(^a)	7/1/31	-	-	-	-	324	185	-	-	-	-
C-819x-K-13	J. P. Thompson (Paul Castro, lessor), E. of Santa Fe Springs; 0.45 mile SW. of Mulberry Drive, 50 feet SE. of C-819 <i>j</i> -K-13. Use: 50 feet NE. of Colma Ave., 70 feet SE. of C-819 <i>j</i> -K-13. Use: Domestic. Casing: 16 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/9/31 are from same sample.	1665 <i>M</i>	146	450	(^a)	7/1/31	-	-	-	-	349	209	-	-	-	-
C-820j-K-13	Victor Reis, E. of Santa Fe Springs; 0.12 mile SW. of Mulberry Ave., 75 feet NW. of Mills Ave., 300 feet NE. of Broadway. Use: Irrigation. Casing: 14 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/9/31 are from same sample.	1675 <i>A</i>	153	-	(^a)	7/1/31	-	-	-	-	319	170	-	-	-	-
C-821e-J-13	Colma Tract Water Co., Well 10, E. of Santa Fe Springs; 0.16 mile NW. of Painter Ave., 15 feet N. of Barton Road. Use: Irrigation. Gravel 40-58; ss-102; 131-134; 535-545; 555-562; 567-570; 590-594; 604-624.	1645 <i>H</i>	157	*x64 <i>n</i>	(^a)	July, 1931	-	-	-	-	369	180	-	-	-	-
C-822j-J-13	R. S. Savery, SW. of Whittier; 100 feet W. of P. E. Ry. 400 feet S. of Center St. Use: Industrial. Casing: 8 inches. Perforated 44-59; 197-206.	1633	154	*217	228	\$ 13.31	129.5	26	400	50	342	160	-	-	-	-
C-822y-K-13	Baird-Morrow Lease, W. of Santa Fe Springs; 0.25 mile N. of Little Lake Road, 50 feet W. of Norwalk Blvd. (Puento-Mills Road). Use: Industrial. Casing: 6 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/9/31 are from same sample.	1626 <i>P</i>	140	-	(^a)	7/17/31	-	-	-	-	242	153	-	-	-	-
C-824y-K-13	A. Fraser, N. of Norwalk; 0.12 mile N. of Clark Ave. (Little Lake Road), 40 feet E. of Pioneer Blvd. (Shamrock Road). Use: Domestic.	1616 <i>M</i>	124	200	1335	9.8/32	242	1.25	21	314	268	153	-	-	-	-
C-825J-12	A. O. Haughton, W. of Santa Fe Springs; 50 feet S. of Anaheim Telegraph Road, 150 feet E. of Orr and Day Road, N. of tank house. Use: Domestic. Casing: 10 inches.	1615 <i>C</i>	136	x48	(^a)	6/29/31	-	-	-	-	269	14	-	-	-	-
C-825r-K-12	Mr. Hathaway, N. of Norwalk; 100 feet S. of Little Lake Road, 575 feet E. of Day and Orr Road. Use: Irrigation. L. A. C. F. C. D. and D. W. R. analyses are from same sample.	1616 <i>D</i>	124	200	(^a)	10/15/30	-	-	-	-	273	17	-	-	-	-
C-825y-K-13	Mrs. K. Carter, N. of Norwalk; 0.12 mile W. of Pioneer Blvd. (Shamrock Road), 0.15 mile N. of Little Lake Road. Use: Irrigation. Casing: 12 inches. Lab. No. 1334 was analyzed at same time as No. 1334 and was kept in glass container stoppered with cork.	1616 <i>L</i>	127	212	1344	3.15/32	102	0.49	21	302	144	20	-	-	-	-
C-826h-J-12	Walnut Irrigation District, Well 1. River; 25 feet E. of Passons Blvd., 0.5 mile N. of Telegraph Road, in brick pump house. Use: Irrigation. Casing: 18 inches. Perforated 233-278; 337-365; 382-430.	1603 <i>I</i>	152	*455	129	7/14/31	42.4	-	27	217	13	35	2	53	13	32
C-826f-J-12	Dowry County Water District, Well 2. Downey; 100 feet NW. of La Reina St., 490 feet NE. of 7th St. Use: Municipal. Casing: 16 inches.	1575 <i>B</i>	124	x574	131	7/15/31	47.9	-	20	250	13	28	9	63	14	25
C-829a-J-11	Rio Hondo Country Club, NW. of Downey; 200 feet NW. of Old River School Road, 0.5 mile SW. of Clara St. (Hunt's Crossing Road). Use: Irrigation and domestic. Casing: 14 inches. Perforated 356-408.	1554 <i>B</i>	118	*449	137	7/15/31	46.9	-	21	253	13	22	2	60	14	25
C-829j-J-11	L. W. Jordan, NW. of Downey; 125 feet N. of Clara St., 2.300 feet E. of Rio Hondo, 0.17 mile E. of Old River School Road. Use: Domestic. Casing: 8 inches.	1564	127	x90	1149	7.7.32	71.4	0.21	32	336	28	61	0	76	17	37

TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER AREA Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)									
							Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Barium bicarbonate (HCO ₃)	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)	Chloride radicle (Cl)				
C-845m-K-13	Earl Myers, S. of Santa Fe Springs; 300 feet S. of Lakeland Road, 5.00 feet E. of A. T. & S. F. Ry. Use Domestic.	1646D	150	-	1340	9/ 8/ 32	68.4	0.24	72	30.5	0	23	10	11.5		
C-852a-K-13	Mr. Pendleton, West Pendleton Well, N. of Norwalk; 110 feet S. of Leffingwell Road, 0.08 mile E. of Norwalk Blvd. Use Irrigation. Casting: 12 inches.	1628F	102	*270	(#)	3/ 12/ 32	-	-	21	249	23	66	12	2.5		
C-852d-K-13	Norwalk State Hospital, Dairy Well, N. of Norwalk; 100 feet S. of Imperial Highway, extended, 27.5 feet E. of Butler Road. Use: Domestic and stock. Casting: 16 inches. Perforated 130-155. L. A. C. F. C. D. and D. W. R. analyses on 11.9.31 are from same sample.	1638	111	*249	(#)	10/ 15/ 30	(#)	-	44	251	55	3	44	10	5.5	
C-852e-K-13	Norwalk State Hospital, "Garden Well," N. of Norwalk; 240 feet S. of Imperial Highway, 300 feet E. of Norwalk Blvd. Use: Irrigation. Casting: 16 inches. Gravel-packed well. L. A. C. F. C. D. and D. W. R. analyses on 11.9.31 are from same sample.	1628A	106	*215	(#)	10/ 15/ 30	(#)	-	28	250	57	51	Tr.	64	14	
C-852f-K-13	Norwalk State Hospital, Well 5, "Garden Well," N. of Norwalk; 240 feet S. of Imperial Highway, 300 feet E. of Norwalk Blvd. Use: Irrigation. Casting: 16 inches. Gravel-packed well. L. A. C. F. C. D. and D. W. R. analyses on 11.9.31 are from same sample.	1629A	96	762	(#)	11/ 9/ 31	55.2	0.10	-	253	57	51	Tr.	64	14	
C-852g-K-13	Los Angeles County Water District, Well 2, Norwalk; 150 feet S.E. of Norwalk Blvd., 400 feet SW. of S. P. R. R., 20 feet W. and 20 feet N. of Well 1, on N. side of alley in center of block. Use: Municipal. Casting: s. inches.	1628E	108	330	(#)	10/ 15/ 30	(#)	-	-	411	62	107	108	25	5.5	
C-852h-K-13	E. G. Paddison (formerly John Paddison), N. of Norwalk; 1290 feet W. of Norwalk Blvd., 630 feet N. of Imperial Highway. Use: Irrigation and domestic. Casting: 12 inches. L. A. C. F. C. D. and D. W. R. analyses on 11.9.31 are from same sample.	1639A	94	x	-	(#)	6/ 29/ 31	(#)	-	354	54	-	-	-	-	
C-852i-K-13	Owner unknown. Norwalk; 162 feet NE. of S. P. R. R., 57 feet N. of Norwalk-Clearwater Road, 200 feet E. of last bend in road to Norwalk. Use: Domestic. Casting: 5 inches. L. A. C. F. C. D. and D. W. R. analyses on 11.9.31 are from same sample.	1627A	121	155	(#)	7/ 17/ 31	(#)	-	-	328	50	-	-	-	-	
C-852m-K-13	Carl Doty, N. of Norwalk; 1,500 feet S. of Lakeland Road, 25 feet E. of Norwalk Blvd. Use: Domestic, but not drinking. Casting: 8 inches.	1638A	104	-	1339	9/ 10/ 32	52.4	0.10	24	232	28	38	Tr.	60	15	30
C-852n-K-13	Mr. Venable, N. of Norwalk; 100 feet S. of Leffingwell Road, 30 feet E. of Butle' Rd. fom north, extended at offset on Leffingwell Road. Use: Irrigation and domestic.	1628C	100	*225	(#)	9/ 12/ 31	-	-	25	262	57	17	Tr.	63	12	5.5
C-852o-K-13	Norwalk State Hospital, Well 4, N. of Norwalk; 525 feet E. of Norwalk Blvd., 50 feet N. of Leffingwell Blvd. Use: Domestic. Casting: 16 inches.	1637B	120	*220	(#)	10/ 15/ 30	(#)	-	25	310	217	105	154	40	3.5	
C-853e-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 30 feet S. of W. of Butler Road. Use: Irrigation. Casting: 12 inches. Perforated 176-188.	1269	125	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853f-K-13	Norwalk State Hospital, Well 3, N. of Norwalk; 0.37 mile S. of Leffingwell Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches. Gravel-packed well. L. A. C. F. C. D. and D. W. R. analyses on 11.9.31 are from same sample.	1361	126	1331	9/ 7/ 32	60.9	0.12	-	262	28	-	-	-	-	-	
C-853g-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 30 feet S. of W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1360	127	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853h-K-13	Norwalk State Hospital, Well 3, N. of Norwalk; 0.37 mile S. of Leffingwell Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1362	128	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853i-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1363	129	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853j-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1364	130	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853k-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1365	131	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853l-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1366	132	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853m-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1367	133	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853n-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1368	134	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853o-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1369	135	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853p-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1370	136	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853q-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1371	137	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853r-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1372	138	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853s-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1373	139	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853t-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1374	140	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853u-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1375	141	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853v-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1376	142	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853w-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1377	143	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853x-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1378	144	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853y-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1379	145	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853z-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1380	146	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853aa-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1381	147	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853ab-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1382	148	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853ac-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1383	149	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853ad-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1384	150	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853ae-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1385	151	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853af-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1386	152	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853ag-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1387	153	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853ah-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1388	154	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853ai-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1389	155	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853aj-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1390	156	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853ak-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1391	157	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853al-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1392	158	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853am-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1393	159	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853an-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1394	160	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853ao-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1395	161	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853ap-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1396	162	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853aq-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1397	163	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853ar-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1398	164	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853as-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1399	165	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853at-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1400	166	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853au-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1401	167	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853av-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1402	168	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853aw-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1403	169	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853ax-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1404	170	297	8/ 24/ 32	58.6	0.12	26	256	30	55	2	70	16	3.5	
C-853ay-K-13	S. Murato, East Pendleton Well, N. of Norwalk; 550 feet W. of Lakeland Road, 0.14 mile N. of Imperial Highway, 0.27 mile W. of Butler Road. Use: Irrigation. Casting: 12 inches.	1405	171	297	8/ 24/ 32	58.6										

TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER AREA—Continued

TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)										
							Specific electrical conductivity at 25°C	Boron ppm	Percent sodium Na x 100 $(\text{Ca} + \text{Mg})$	Bicarbonate radicle (HCO ₃)	Chloride radicle (Cl ⁻)	Nitrate radicle (NO ₃)					
C-Swift K-12	Joe Lewis, S. of Downey; 315 feet W. of Woodruff Ave., 580 feet N. of Foster Road. Use: Irrigation. Casing: 12 inches.	15881	94	163	136	7/15/31	64.9	28	320	25	51	0	80	16	47		
C-Swift L-12	Jim Best Inc., Well No. 1, N.E. of Bellflower; 100 feet S. of Washington Blvd., extended east from turn in street, 600 feet E. of Woodruff Ave. to south. Use: Irrigation. Casing: 12 inches. Perforated 94°; 132°; 140°.	4803	82	*147	73	6/18/31	62.9	-	22	299	34	51	0	81	22	38	
C-Swift K-12	Poway County Water District, Well 1. Downey: 100 feet NE. of Davis St., 125 feet NW. of Dolan St. Use: Municipal. Casing: 16 inches. Perforated 345-365; 465-485; 536-551; 564-572.	1566A	115	*x608	130	7/15/31	45.8	23	247	13	25	3	61	13	28		
C-Swift K-11	Los Angeles County Farm, Well 7. SW. of Downey; 735 feet N.E. of Imperial Highway; 79 feet NW. of Rivers Ave. Use: Irrigation. Casing: 18 inches.	1547A	100	530	139	7/15/31	53.4	-	21	277	18	28	1	68	16	29	
C-Swift K-11	Los Angeles County Farm, Well 4. SW. of Downey; 1,740 feet SW. of Imperial Highway, 1,000 feet NW. of Rivers Ave., extended in rear of boiler house at water tank tower. Use: Industrial. Casing: 12 inches. Perforated near 500; 503-647; 1325; 1326.	1537C	93	*1,493	138	7/15/31	54.3	-	38	217	28	65	0	56	12	53	
C-Swift K-11	Burkli Bros. Packing Co., E. of Southgate; 100 feet W. of U.P. R.R., 0.25 mile N. of Imperial Highway (Norton Ave.). E. of entrance of Rio Hondo into Los Angeles River, iron pump house at dairy.	1526A	96	x	-	1660	1/20/33	42.3	0.10	27	28	12	14	Tr.	47	15	29
C-Swift K-11	J. A. Quill, SW. of Downey; 300 feet S. of Imperial Highway, 250 feet E. of Downey Ave. Use: Irrigation and domestic. Casing: 12 inches. Perforated 433; 440-471; 480-491.	1557A	105	*501	140	7/15/31	47.6	21	253	14	29	4	62	13	25		
C-Swift L-11	Mr. Johnson, E. of Compton; 25 feet S. of Washington St., 200 feet E. of Los Angeles River Bridge. Use: Domestic. Casing: 8 inches.	910	67	*x350	(¹) 855	3/25/32	50.4	0.16	35	225 223	28 18	50	0	-	50	13	45
C-Swift L-11	George Faulkner, E. of Compton; 3754 feet E. of Atlantic Ave., 200 feet S. of Washington Blvd.; 70 feet W. of 1/877 1/11, in back of house. Use: Municipal. Casing: 4 inches. Perforated 95-110.	910D	71	115	76	6/18/31	48.1	32	214	16	34	0	54	13	40		
C-Swift L-11	Montana Land Co., Well 11. S. of Clearwater; 100 feet W. of Territos Ave., 2200 feet S. of Artesia St., 30 feet S. of N. property line. Use: Irrigation. Casing: 12 inches. Perforated 925; 930.	921E	67	10	736	2/11/32	98.5	0.16	18	613	21	61	0	130	41	52	
C-Swift L-11	City of Long Beach, North Long Beach Well 4. Underbank Well, S. of Clearwater; 150 feet E. of Fremont Blvd. (Ocean Ave.), 130 feet S. of Bush St., 900 feet S. of Artesia Ave. Use: Municipal.	942C	60	200	86	6/19/31	40.0	.....	24	232	9	Tr.	53	11	25	
C-Swift L-11	A. Nagg, E. of Clearwater; 170 feet S. of Washington St., 470 feet E. of Ceritos Ave., 250 feet E. of C-885b-L-1L. Use: Irrigation. Casing: 5 inches.	950A	80	172	77	6/18/31	44.6	-	24	229	13	30	0	56	13	29	
C-Swift L-11	First Hole, Bellflower, at SW. corner of Clark Ave. and Center St. Casing: None.	961A	71	14	740	2/12/32	46.3	0.15	21	259	13	23	0	57	16	25	
C-Swift L-11	Montana Land Co., Well 8. S. of Bellflower; 3200 feet S. of Artesia Ave., 5 miles E. of Ceritos Ave., 5 feet W. of Clark Ave. Use: Irrigation. Casing: 24 inches. Perforated 778-790; 862-874.	903	62	*982	68	6/18/31	42.2	24	232	13	15	0	51	17	28		
C-Swift L-12	Mrs. Schaefer, N. of Artesia; 0.15 mile S. of Apple St., 180 feet E. of Gridley Blvd. Use: Irrigation and domestic. Casing: 12 inches. Perforated 102-122.	1012	61	*131	19	6. 4. 31	52.1	25	262	18	42	0	67	15	36		
C-Swift L-12	J. W. Smith, Artesia; 280 feet N. of Orange St., 470 feet E. of Gridley Blvd. Use: Irrigation and domestic. Casing: 12 inches. Perforated 167-171; 197-203; 203-224.	1013	58	*239	21	6. 4. 31	42.1	24	232	7	22	0	54	10	26		

TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER AREA—Continued

Well number	Location and description	Elevation of ground	Laboratory number	Date	Specific electric conductivity ($K \times 10^8$ at $25^\circ C$)	Constituents (parts per million)												
						Total depth of well in feet	Boron ppm	Per cent sodium	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca^{2+})	Magnesium (Mg^{2+})	Sodium (Na^+)				
C-89d-L-13	Mr. Ludwick, NE. of Artesia; 1,160 feet W. of Bloomfield Ave.; 80 feet S. of Artesia Ave. Use: Irrigation and domestic. Casing: 12 inches. Perforated: 118-132; 150-160; 167-171.	1032	58	*186	18	6/ 4/31	52.8	25	202	21	38	0	65	16	35			
C-89e-L-13	Test Hole, Carranca; at NE. corner of Center St. and Marquardt Ave. Casing: None.	1061	66	6	737	2/12/31	238	1.02	87	1,028	297	144	0	32	22	525		
C-894-L-13	D. E. Viega (formerly Clever Bros.), W. of Buena Park; 200 feet W. of Marguerite St., 400 feet N. of Artesia Ave., 29 feet E. of irrigation well. Use: Domestic. Casing: 11 inches.	1062	60	*198	859	3/24/32	47.9	0.10	41	217	28	38	0	42	12	48		
C-895-L-14	J. E. S. Heath (formerly Leon Vandernolle), W. of Buena Park; 160 feet S. of Artesia Ave.; 165 feet E. of Miller Road. Use: Domestic. Casing: 4 inches.	1072	57	x	—	—	860	3/24/32	44.9	0.10	35	217	13	41	0	43	14	41
C-897a-L-13	Albert Myers, Jr. of Artesia; 1,470 feet S. of Orange St., 1,170 feet N. of Orangethorpe Ave.; 325 feet E. of Bloomfield Ave. Use: Irrigation and domestic. Casing: 12 inches. Gravel 150-153; 184-188; 267-275-285-288.	1033A	50	*300	17	6/ 4/31	46.8	—	41	220	16	43	Tr.	47	9	50		
C-897p-L-13	Test Hole, E. of Artesia; at NE. corner of Orangethorpe Ave. and Cherrington Ave. Casing: None.	1054K	47	17	743	2/15/32	3,310	0.45	61	399	11,981	3,991	0	908	1,343	5,564		
C-899a-M-13	B. F. Draper, SE. of Artesia; 700 feet S. of Anaheim St. (La Palma Ave.). 240 feet E. of Bloomfield Ave. Use: Irrigation and domestic. Casing: 12 inches. Perforated: 218-232; 298-305; 313-320.	1035	38	*325	25	6/ 4/31	45.1	—	—	38	220	18	37	Tr.	44	11	43	
C-901d-M-12	Montana Land Co., Well 1, NE. of Signal Hill; 0.25 mile N. of Montana ranch office building, 1,500 feet E. of Somerton Ave. on N. side of road, 1.0 mile N. of Bixby Station Road. Use: Irrigation. Casing: 12 inches.	985	51	—	71	6/18/31	40.1	—	—	26	229	9	16	Tr.	49	12	28	
C-901k-M-12	Test Hole, W. of Artesia; on S. line of Orangethorpe Ave., 200 feet E. of San Gabriel River. Casing: None.	994A	52	14	747	2/15/32	122	0.33	24	708	46	78	0	141	44	76		
C-902j-M-11	Standard Oil Co., Hynes Well 1, S. of Cleawater; 250 feet W. of Downey Ave., 1,900 feet S. of South St. Use: Boiler feed and domestic. Casing: 15 inches. Perforated: 319-323; 625-630.	944	48	*648	74	6/18/31	36.6	—	46	201	11	14	1	40	7	51		
C-902k-M-11	Standard Oil Co., Hynes Well 2, S. of Cleawater; 100 feet W. of Downey Ave., 1,915 feet S. of South St. Use: Boiler feed and domestic. Gravel 1284-1349.	944A	48	*1,371	75	6/18/31	39.5	—	31	226	13	9	1	50	10	35		
C-902m-M-11	Test Hole, S. of Cleawater; 0.1 mile E. of Downey Ave. on S. line of South St. Casing: None. Casing: 24 inches.	953C	53	17	746	2/15/32	55.6	0.17	36	277	23	41	0	58	14	54		
C-905a-M-11	City of Signal Hill, Well 1, N. of Signal Hill; 30 feet W. of Gundry Ave., 300 feet S. of Wardlow Road. Use: Municipal. Casing: 24 inches.	928s	76	555	(*)	5/18/31	—	—	—	215	26	—	—	—	—	—		
C-905f-M-11	City of Signal Hill, Well 3, N. of Signal Hill; 15 feet N. of 33rd St., half-way between Falcon and Walnut Avenues. Use: Municipal. Casing: 24 inches.	928B	72	500	(*)	5/18/31	—	—	—	193	26	—	—	—	—	—		
C-905h-M-12	Montana Land Co., Well 73, NE. of Signal Hill; 100 feet S. of Bixby Station Road at bend in road, 0.43 mile W. of Somerset Ave. Use: Irrigation. Casing: 4 inches. Perforated: 256-270.	966	41	*270	69	6/18/31	35.1	—	48	183	13	16	Tr.	33	8	49		
C-908f-M-12	Montana Land Co., Well 29, NE. of Signal Hill; 50 feet W. of road passing Lewellen School, 0.5 mile W. of Somerset Ave., 2,000 feet N. of Bixby Station Road. Use: Irrigation. Casing: 12 inches. Gravel 301-322; 709-716.	986A	46	*1,027	70	6/18/31	38.2	—	30	207	9	16	0	45	10	30		
C-908g-M-12	City of Long Beach, Commission Well 1, NE. of Signal Hill; 305 feet S. of Carson St. (Bixby Station Road), 1,233 feet W. of Palo Verde Ave. Use: Municipal. Casing: 26 inches. Perforated 1361-1378; 1402-1410; 1430-1448; 1560-1635. Samples on 7, 31, 31, 8, 24-31, 10, 31, and 10, 28/31, are from depths of 246, 970, 1,120, and 1,600 feet, respectively, while drilling. Sample on 1,4-32 was during pumping test. Later samples are from operating well.	986C	45	*1,668	(*)	7/31/31	—	—	51	170	27	20	—	31	5	47		
										32	212	12	—	48	5	47		
										44	162	9	14	29	4	32		
										93	202	46	0	5	100			
										93	200	48	Tr.	1	49			
										33	214	12	—	46	5	32		
										83	223	38	Tr.	1	49			
										37	199	12	—	14	1	33		
										11	132	—	—	—	—	—		

TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER AREA—Continued

Well number	Location and description	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance ($K \times 10^8$ at $25^\circ C$)	Boron ppm	Constituents (parts per million)					
								Boronate radicle ($Na \times 100$ ppm)	Bicarbonate radicle ($Ca + Mg$ + Na_3)	Chloride radicle (Cl)	Sulfate radicle (SO_4)	Nitrate radicle (NO_3)	
C-909-N-12	City of Long Beach, Commission Well 2, NE. of Signal Hill; 79 feet E. of Palo Verde Ave., 272 feet S. of Carson St. (Bixby Station Road). Use: Municipal. Casing: 26 inches. Perforated 300'-316'; 364'-394'; 618'-628'. Samples on 8' 10' 31' 8' 17' 31, and 8' 25' 31 are from depths of 384', 626', and 530 feet, respectively, while drilling. Later samples are from operating well.	996	37	1,054	(1)	8.40 31	—	34	149	13	16	51	5
J. P. Labordeotte, S. of Artesia; 0.27 mile W. of Los Alamitos Blvd.; 30 feet S. of Spring St., 50 feet W. of Los Angeles County Line at Spring St. Use: Domestic.	(2)	8.17 31	—	(2)	7.28 31	—	31	204	13	—	44	36	
Birby Ranch, E. of Long Beach; 10 feet S. of 7th St. on E. side of Palo Verde St., extended; 6.55 mile E. of Hathaway Ave. Use: Irrigation. Casing: 14 inches.	492	24	x4020	(4)	11.26 30	—	40	203	11	14	37	5	
(C-913r-N-12) J. P. Labordeotte, S. of Artesia; 0.27 mile W. of Los Alamitos Blvd.; 30 feet S. of Spring St., 50 feet W. of Los Angeles County Line at Spring St. Use: Domestic.	1029	22	x332	(5)	6.19 31	—	32	209	10	—	45	6	
Birby Ranch, E. of Long Beach; 10 feet S. of 7th St. on E. side of Palo Verde St., extended; 6.55 mile E. of Hathaway Ave. Use: Irrigation. Casing: 14 inches.	492C	24	x4020	(6)	6.23 31	—	46	215	10	15	50	6	
Test Hole, E. of Long Beach; 500 feet N. of Anaheim St., 5 feet W. of Palo Verde Ave. Casing: None.	492C	65	10	772	3 3.32	440	1.44	69	604	967	473	0	
Bryant Ranch, E. of Long Beach; 0.45 mile N. of Anaheim St.; 5,000 feet W. of Palo Verde Ave., back of ranch house. Use: Domestic. Casing: 12 inches.	471	36	x1,500	847	3.25 32	32.2	0.12	83	162	16	12	0	
(C-914b-N-12) City of Long Beach, Citizens Well 4, NE. of Signal Hill; 40 feet S. of Spring St., 1,680 feet E. of Newport Ave. Use: Municipal. Casing: 12 inches. Perforated 800'-860.	95SB	29	1,155	(9)	10.19 21	—	—	89	207	17	2	Tr.	6
Test Hole, E. of Signal Hill; 100 feet E. of Cerritos Ave., 0.5 mile S. of Spring St. Casing: None.	959E	25	15	773	3.7 32	223	0.77	90	1,65	144	128	0	24
(C-916e-N-11) City of Long Beach, Citizens Well 4, NE. of Signal Hill; NW. corner of Spring St. and Somerset Ave. Casing: None.	97s	24	11	769	3.2 32	51.3	0.17	45	235	41	30	0	40
Montana Land Co., Well 19, N. of Signal Hill; 0.26 mile E. of Cherry Ave., 0.35 mile N. of Bixby Station Road, 30 feet S. of private road to Cerritos Fun Club. Use: Irrigation. Casing: 12 inches. Perforated 775'-790'; 522'-574.	936E	68	*981	1151	7.7 32	37.7	0.19	84	195	27	0	0	10
Test Hole, N. of Long Beach; SW. corner of South St. and Dairy Ave., 0.4 mile W. of Atlantic Blvd. Casing: None.	993	50	15	745	2.15 32	62.6	0.17	38	284	25	63	0	63
C-930c-L-11 Carlson Estate, N. of Long Beach; 75 feet S. of Artesia St., 300 feet W. of Atlantic Blvd. Use: Domestic and irrigation.	912	57	350	856	3.25 32	54.8	0.14	36	223	25	69	0	59
(C-932a-L-11) City of Long Beach, North Long Beach Well 1, N. of Long Beach; 185 feet E. of Orange Ave., 2,400 feet S. of Artesia Ave., S. of Toppy St. Use: Municipal. Casing: 16 inches. Perforated 314'-324'; 372'-413'; 790'-820'; 832'-870'; 906'-980.	923	55	x1,000	83	6.19 31	47.3	—	47	192	30	42	0	39
C-929j-N-10 City of Long Beach, North Long Beach Well 3, N. of Long Beach; 95 feet N. of Market St., 90 feet W. of Dairy Ave. Use: Municipal. Casing: 16 inches. Perforated 385'-390.	904	48	x467	85	6.19 31	46.8	—	63	171	23	59	Tr.	28
(C-934b-M-10) City of Long Beach, Development Well 3, N. of Signal Hill; 710 feet S. of Wardlow St., 1,495 feet E. of Cherry Ave. In Municipal Airport. Use: Municipal. Casing: 26 inches. Perforated 153'-190'; 286'-300'; 315'-330'; 380'-602.	938B	51	*752	95	6.19 31	33.3	—	65	184	25	57	—	69
(C-935c-M-11) City of Long Beach, Development Well 6, N. of Signal Hill; 710 feet S. of Wardlow St., 1,495 feet E. of Cherry Ave. In Municipal Airport. Use: Municipal. Casing: 26 inches. Perforated 153'-190'; 286'-300'; 315'-330'; 380'-602.	938c	66	*x915	97	6.19 31	34	—	55	171	7	15	1	48
(C-936f-M-11) City of Long Beach, Development Well 6, N. of Signal Hill; 90 feet S. of Wardlow St., 1,616 feet E. of Walnut Ave. Use: Municipal. Casing: 26 inches. Perforated 287'-305'; 540'-615.	928G	66	(C) 7.5 32	(C) 9.13 32	(C) 8.3 32	(C) 10.1 32	(C) 11.1 32	(C) 10.1 32	(C) 10.1 32	(C) 10.1 32	(C) 10.1 32	(C) 10.1 32	(C) 10.1 32

TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER AREA—Continued

Well number	Location and description	Elevation of ground	Location number	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^4$ at $25^\circ C$)	Constituents (parts per million)								
								Boron ppm	Per cent sodium $Na \times 100$	Bicarbonate $Ca + Mg$	Magnesium (Mg)	Nitrate radicle (NO_3^-)	Sulfate radicle (SO_4^{2-})			
C-936g-M-11	City of Long Beach, Development Well 7, N. of Signal Hill; 90 feet S. of Wardlow St., 235 feet E. of Cherry Ave. Use: Municipal. Casing: 26 inches. Perforated 305-570.	938C	59	*x650	98	6/19/31	37.1	-	86	195	21	3	0	10	1	83
	Airport. Use: Not used (formerly municipal). Casing: 12 inches. Gravel: 265-35; 877-897; 159-1017.			(0) 8/3.32	(0) 9/13.32				87	181	28	1	11	1	1	76
				(0) 10/1.32	(0) 11/1.32				85	192	24	Tr.	9	1	1	75
				(0) 11/1.32	(0) 11/1.32				86	189	24	Tr.	9	1	1	77
				(0) 10/19.24	(0) 9/8.25				87	192	14	1	9	1	1	71
				(0) 9/8.25	(0) 9/13.32				85	196	14	1	9	1	1	71
C-936i-N-11	City of Long Beach, Development Well 1, N. of Signal Hill; 940 feet S. of Wardlow St., 905 feet E. of Cherry Ave. in Municipal Airport. Use: Municipal. Casing: 26 inches. Perforated 345-357; 420-500; 707-720.	938	50	*1.017	(0)	7/5.32	7	33.1	83	158	30	Tr.	... 11	1	1	66
	feet S. of Wardlow St., 2,560 feet E. of Cherry Ave. in Municipal Airport. Use: Municipal. Casing: 26 inches. Perforated 400-500; 662-740; 942-972.			(0) 10/1.32	(0) 11/1.32				91	205	22	5	12	1	1	64
				(0) 11/1.32	(0) 9/13.32				83	192	21	13	8	1	1	73
C-936l-N-11	City of Long Beach, Development Well 5, N. of Signal Hill; f.267 feet S. of Wardlow St., 2,560 feet E. of Cherry Ave. in Municipal. Casing: 26 inches. Perforated 375-550.	948A	46	*1.016	(0)	10/19.24	96	6/19/31	81	165	21	1	Tr.	10	3	72
	feet S. of Wardlow St., 2,560 feet E. of Cherry Ave. in Municipal. Casing: 26 inches. Perforated 375-550.			(0) 8/3.32	(0) 9/13.32				71	231	23	1	25	1	1	72
				(0) 10/1.32	(0) 11/1.32				90	211	21	13	8	1	1	90
C-936m-M-11	City of Long Beach, Development Well 8, N. of Signal Hill; 90 feet S. of Wardlow St., 467 feet E. of Cherry Ave. Use: Municipal. Casing: 26 inches. Perforated 375-550.	938E	49	*x662	(0)	7/5.32	88	6/19/31	84	179	28	2	... 8	1	1	76
	feet S. of Wardlow St., 467 feet E. of Cherry Ave. Use: Municipal. Casing: 26 inches. Perforated 375-550.			(0) 8/3.32	(0) 10/1.32				47	178	26	1	11	1	1	72
				(0) 11/1.32	(0) 11/1.32				85	175	25	1	14	1	1	73
C-937a-N-11	City of Long Beach, Citizens Well 1, NE. of Signal Hill; 425 feet S. of Spring St., 320 feet E. of Newport Ave. Use: Municipal. Casing: 12 inches.	959	33	*x420	(0)	10/19.24	87	6/19/31	32.3	52	164	12	13	1	22	3
	feet S. of Spring St., 320 feet E. of Newport Ave. Use: Municipal. Casing: 12 inches.			(0) 8/3.32	(0) 10/1.32				60	168	11	16	0	25	7	47
C-937c-N-11	City of Long Beach, Citizens Well 5, NE. of Signal Hill; 1,050 feet S. of Spring St., 1,170 feet E. of Newport Ave. Use: Municipal. Casing: 26 inches. Perforated 208-224; 300-330; 340-350; 368-408; 420-610.	959A	38	*x672	(0)	7/5.32	88	6/19/31	31.9	60	165	14	10	0	20	6
	feet S. of Spring St., 1,170 feet E. of Newport Ave. Use: Municipal. Casing: 26 inches. Perforated 208-224; 300-330; 340-350; 368-408; 420-610.			(0) 8/3.32	(0) 9/13.32				70	160	18	5	17	1	1	52
				(0) 9/13.32	(0) 10/1.32				65	160	15	13	21	2	2	49
				(0) 10/1.32	(0) 11/1.32				53	154	14	4	25	2	2	37
C-937e-N-11	City of Long Beach, Citizens Well 6, NE. of Signal Hill; 520 feet S. of Spring St., 1,010 feet E. of Newport Ave. Use: Municipal. Casing: 26 inches. Perforated 407-514; 500-600; 755-765.	959B	33	*x1,422	(0)	8/3.32	80	6/19/31	80	147	27	3	11	1	1	60
	feet S. of Spring St., 1,010 feet E. of Newport Ave. Use: Municipal. Casing: 26 inches. Perforated 407-514; 500-600; 755-765.			(0) 9/13.32	(0) 10/1.32				79	149	25	13	13	1	1	61
				(0) 10/1.32	(0) 11/1.32				81	150	25	6	11	1	1	60
C-937f-N-11	City of Long Beach, Citizens Well 7, NE. of Signal Hill; 40 feet S. of Spring St., 80 feet E. of Newport Ave. Use: Municipal. Casing: 26 inches. Perforated 725-776; 874-885; 912-934; 952-962.	948C	36	*1.105	(0)	6/10/31	89	6/10/31	39.0	88	220	20	2	0	7	2
	feet S. of Spring St., 80 feet E. of Newport Ave. Use: Municipal. Casing: 26 inches. Perforated 725-776; 874-885; 912-934; 952-962.			(0) 7/5.32	(0) 8/3.32				90	213	24	Tr.	0	15	2	67
				(0) 9/13.32	(0) 10/1.32				77	187	21	6	21	3	6	64
				(0) 10/1.32	(0) 11/1.32				91	207	21	3	20	6	1	64
				(0) 11/1.32	(0) 11/1.32				59	180	15	12	12	2	2	51
C-937g-N-11	City of Long Beach, Alamitos Well 2, E. of Signal Hill; 1,265 feet E. of Ceritos Ave., 53 feet N. of Stearns St. Use: Municipal. Casing: 12 inches. Gravel 137-190.	460L	23	*x273	(0)	10/19.24	90	6/19/31	35.8	77	158	12	22	1	13	2
	feet E. of Ceritos Ave., 53 feet N. of Stearns St. Use: Municipal. Casing: 12 inches. Gravel 137-190.			(0) 6/19/31	(0) 6/19/31				79	177	16	21	0	12	3	76
C-938b-N-11	City of Long Beach, Alamitos Well 6, E. of Signal Hill; 1,940 feet E. of Ceritos Ave., 615 feet N. of Stearns St. Use: Municipal. Casing: 26 inches. Perforated 804-915.	460G	22	*949	91	6/19/31	36.9		84	195	14	11	1	1	8	4
	feet E. of Ceritos Ave., 615 feet N. of Stearns St. Use: Municipal. Casing: 26 inches. Perforated 804-915.			(0) 6/19/31	(0) 6/19/31				92	214	22	Tr.	5	6	2	98
C-938d-N-11	City of Long Beach, Alamitos Well 8, E. of Signal Hill; 1,345 feet E. of Ceritos Ave., 655 feet N. of Stearns St. Use: Municipal. Casing: 26 inches. Perforated 778-794; 804-915.	460H	24	*x982	(0)	7/5.32	92	6/19/31	39.7	89	225	16	Tr.	5	6	1
	feet E. of Ceritos Ave., 655 feet N. of Stearns St. Use: Municipal. Casing: 26 inches. Perforated 778-794; 804-915.			(0) 8/3.32	(0) 9/13.32				92	214	22	1	6	1	1	92
				(0) 9/13.32	(0) 10/1.32				93	215	22	3	7	1	1	85
C-938e-N-11	City of Long Beach, Alamitos Well 9, E. of Signal Hill; 1,380 feet E. of Ceritos Ave., 1,230 feet N. of Stearns St. Use: Municipal. Casing: 26 inches. Perforated 768-774; 804-915; 1086-1148.	460I	23	*x1,184	(0)	7/5.32	93	6/19/31	40.3	87	226	16	4	Tr.	7	3
	feet E. of Ceritos Ave., 1,230 feet N. of Stearns St. Use: Municipal. Casing: 26 inches. Perforated 768-774; 804-915; 1086-1148.			(0) 7/5.32	(0) 8/3.32				82	207	19	2	13	1	1	96
				(0) 8/3.32	(0) 9/13.32				71	188	13	13	19	12	1	95
				(0) 9/13.32	(0) 11/1.32				91	209	20	1	6	1	1	84
C-938f-N-11	City of Long Beach, Alamitos Well 11, E. of Signal Hill; 1,640 feet E. of Ceritos Ave., 537 feet N. of Stearns St. Use: Municipal. Casing: 26 inches. Perforated 170-190; 444-465; 480-494.	460F	23	*x500	(0)	6/19/31	33.6		92	165	16	9	Tr.	10	2	75
	feet E. of Ceritos Ave., 537 feet N. of Stearns St. Use: Municipal. Casing: 26 inches. Perforated 170-190; 444-465; 480-494.			(0) 7/5.32	(0) 8/3.32				84	166	24	4	10	10	1	62
				(0) 8/3.32	(0) 9/13.32				84	151	21	5	1	5	1	62
				(0) 9/13.32	(0) 11/1.32				93	166	19	12	12	12	1	60

TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance ($K \times 10^{-4}$ at 25°C)	Constituents (parts per million)						
								Boron ppm	Perc. sodium	Bicarbonate radicle ($\text{Ca} + \text{Mg}$)	Sulfate radicle (SO_4)	Chloride radicle (Cl)	Calcium (Ca)	Magnesium (Mg})	Sodium ($\text{Na}$)
C-038j-N-11	City of Long Beach, Alamitos Well 12, E. of Signal Hill; 1,500 feet E. of Torrance Ave., 900 feet N. of Stevens St., 1/2 mile N. of Municipal. Casing: 28 inches. Perforated 162-180; 197-210; 324-330.	460E	23	*500	(2)	7/ 5.32			84	156	5	10	1	64
C-040e-N-12	City of Long Beach, Wise Ranch Well 1, NE. of Long Beach; 80 feet S. of Spring St.; 711 feet E. of Studebaker Road. Use: Municipal. Casing: 2½ inches. Perforated 330-410; 588-600; 632-654; 874-938; 953-980. Samples on 4 1/2-31 and 5 1/8-31 are from depths of 428, 618, and 980 feet, respectively, while drilling. Later samples are from operating well.	1006D	22	*1086	(2)	4/17.31			42	240	18	43	52	7
C-040f-N-12	Test Hole, NE. of Long Beach; 100 feet N. of Spring St., 300 feet W. of west levee of San Gabriel River. Use: None.	1009E	24	11	771	3/ 2.32	236	0.41	94	165	14	3	25	54
C-040m-N-12	City of Long Beach, Wise Ranch Well 2, NE. of Long Beach; 1,130 feet S. of Spring St.; 710 feet E. of Studebaker Road. Use: Municipal. Casing: 26 inches. Perforated 320-344; 380-400; 570-595; 930-940; 950-952.	1009F	21	*1041	(2)	7/ 5.32			42	152	14	23	32	4
C-041d-K-13	Mr. Young, Santa Fe Springs; 150 feet SW. of Los Nietos Road; 60 feet SE. of Painter Ave., extended. Use: Irrigation. Gravel 40-45; 90-104.	1645G	160	*111	233	8/13.31	45.3	-	31	223	14	38	1	43
C-041k-J-13	Murphy Ranch, S. of Whittier; 581 feet NW. of Painter Ave., 581 feet SW. of Mulberry Drive, extended. Use: Irrigation. Casing: 3 inches. L. A. C. F. C. D. and D. W. R. analyses on 11.9/31 are from same sample.	1654D	146	-	(2)	6/29.31			-	302	316	-	-	-
C-041o-J-13	W. H. Stabs, S. of Whittier; 45 feet S. of Mulberry Ave., 0.15 mile W. of Painter Ave. Use: irrigation. Casing: 12 inches.	1654F	148	x62	(1)	11/ 9.31	327	-	-	283	256	-	-	-
C-042e-K-13	J. J. Rehui, E. of Norwalk; 1,400 feet W. of Valley View Ave., 100 feet N. of road 0.5 miles S. of Imperial Highway. Use: Irrigation. Casing: 12 inches. Perfected 934-988.	1668B	105	*1030	232	1/ 6.33	342	0.33	-	244	178	-	-	-
C-044f-K-15	L. Good, Well 1, La Habra; 250 feet W. of La Mirada Ave., 0.10 mile N. of Ocean Ave. Use: Domestic. Casing: 7 inches. Open bottom casing.	1737A	244	x180	1771	2/12.33	167	0.14	-	54	375	84	210	Tr.
C-044g-K-15	L. Good Well 2, La Habra; 450 feet S. of P.E.R., 115 feet W. of La Mirada Ave. Use: Domestic and irrigation. Perfected 535-605.	1737B	268	*x622	1772	2/12.33	96.7	0.22	-	369	59	-	-	-
C-047e-L-14	Charles L. McComber, Plant 2, N. of Buena Park; 1,700 feet N. of La Mirada Road, 500 feet E. of unnamed road. Use: Irrigation. Casing: 12 inches. Perfected 685-716.	1101A	120	*740	(4)	12/ 4.25	-	-	99	41	88	-	30	Tr.
C-048m-L-14	Standard Oil Co., Northern Well 4, NW. of Buena Park; 1,560 feet S. of Center St.; 305 feet E. of N. and S. center line of S. C. T. S. R. 11W.; S. H. B. & M., \$8 feet W. of boiler house. Use: Boiler feed and domestic. Casing: 12 inches.	1081A	65	x1,023	37	6/ 5.31	48.9	-	79	195	21	57	0	16
C-048p-L-14	Charles L. McComber, Plant 4, NW. of Buena Park; 60 feet SW. of A. T. & S. F. Ry., 200 feet S. of La Mirada Road 110 1/3 inches. Perfected 147-163; 166-202; 265-285; 283-267.	1081D	110	275	38	6/ 5.31	58.9	-	48	238	27	75	-	40
C-068b-K-15	Union Oil Co., Well 6, NE. of La Habra; 300 feet E. of Fullerton Road; 1,875 feet N. of Whittier Ave. (State Highway). Use: Irrigation. Casing: 16 inches. Perfected 306-750.	1765	471	*x756	(in)	Nov. 1927			54	336	115	316	-	51
C-068f-K-16	Union Oil Co., Well 9, NW. of Brea; 0.75 mile N. of Central Ave., 1,200 feet W. of Berry St. Use: Irrigation. Casing: 16 inches. Perfected 340-750.	1785	561	*x760	(in)	Apr. 1931			39	317	127	386	-	62
C-069g-K-16	Union Oil Co., Well 14, NW. of Brea; 475 feet S. of Central Ave., 190 feet W. of Puente St. Use: Irrigation. Casing: 16 inches. Perfected 400-1700.	1786A	374	*1,709	(1)	5/ 9.31	163	0.24	47	220	162	423	13	59

TABLE 12. WELLS IN LOWER SAN GABRIEL RIVER AREA Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^3$ at 25°C)	Constituents (parts per million)					
								Boron pmm	Per cent sodium	Bicarbonate + Na	Chloride (Cl ⁻)	Nitrate radicle (NO ₃ ⁻)	Sulfate radicle (SO ₄ ²⁻)
C-969h-K-16	Union Oil Co., Well 5, W. of Brea; 320 feet S. of Ocean Ave., 800 feet E. of Puente St. Use: Irrigation. Casing: 16 inches. Perforated 1280-1740.	1787A	328	*x1.790	(n)	Nov. 1927	71	433	192	.....	54	24	260
					(n)	Apr. 1931	60	447	162	306	81	40	e251
					(n)	June 1931	0.38	41	147	380	115	61	e171
					(n)	6/20/31	163	0.27	43	375	108	59	e177
					(n)	July 1931	57	416	156	372	2	49	e245
C-970m-K-15	D. J. Bastanchury, Well 1 (formerly Union-San Juan Well 1), S. of La Habra; 1200 feet S. of Cedar Ave.; 200 feet E. of Idaho St. Use: Irrigation. Casing: 18½ inches. Gravel 100-150; 350-622. Converted oil well.	1748B	300	*x1.695	(n)	6/9/31	0.33	57	348	107	133	63	e150
					(n)	7/31/31	.99	0.33	44	369	84	25	e112
C 970p-K 15	D. J. Bastanchury, Well 2, S. of La Habra; 1,200 feet S. of Cedar Ave.; 250 feet E. of Idaho St.; 50 feet E. of C-970m K-15. Use: Irrigation. Casing: 16 inches.	1748C	300	x418	(t)	7/31/31	107	0.45	59	375	101	131	Tr.
					(t)							59	22
C-972i-K-16	D. J. Bastanchury, Hill Forty, Well 2, W. of Brea; 1,750 feet S. of Ocean Ave. (Deodora St.), 100 feet W. of Puente St. Use: Irrigation. Casing: 24 inches. Perforated 930-1380, plugged at 1,440 feet. Converted oil well.	1788A	352	*x1.685	(n)	6/9/31	0.37	34	305	135	314	119	120
					(n)	6/28/31	143	0.25	39	332	135	100	54
C-972j-K-16	Union Oil Co., Well 16, W. of Brea; 100 feet S. of Cedar Ave.; 2,000 feet W. of Berry St. Use: Irrigation. Casing: 16 inches. Perforated 1400-1446, sanded up to 1,232. The analysis (6/10/31) is of the water pumped from the well with the top water entering through a hole in the casing at 121 feet and which is shown by separate analysis (6/23/31). This top water drops into the hole to meet the lower level at about 150 feet.	1788C	330	*x1.485	(t)	6/9/31	142	0.42	53	384	128	245	2
					(t)	6/10/31	.....	0.60	56	401	138	233	40
					(n)	6/25/31	.....	.....	21	329	192	138	197
					(n)	June 1931	.....	.....	56	333	233	71	65
					(n)	July 1931	.....	.....	37	346	142	109	197
					(n)	7/31/31	146	0.55	61	439	128	266	128
					(n)					0	70	35	220

* Log files of Division of Water Resources.

† Water levels in files of Division of Water Resources.

‡ Includes small equivalent quantity of Carbonate (CO₃²⁻).§ Includes sulfate (SO₄²⁻) determined by turbidity method.

|| Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

d Analysis by Carl I. Wilkinson, formerly Wilkinson and Burke, Los Angeles.

e Analysis by Los Angeles County Flood Control District, Los Angeles.

f Analysis by Orange County Flood Control District, Santa Ana, California.

g Analysis by Smith-Emery Company, Los Angeles.

h Analysis by City of Long Beach, Engineering Laboratory.

i Analysis by Association Laboratory, Anaheim, California.

j Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.

k Analysis by Union Oil Co. of California.

l Analysis by H. M. Bergen, Fullerton, California.

m Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.

n Analysis by United States Geological Survey.

TABLE 13. SURFACE WATERS IN LOWER SAN GABRIEL RIVER AREA

Number	Location and description	Location number	Elevation of ground	Discharge in second-foot	Laboratory number	Date	Specific electrical conductivity ($K \times 10^{-3}$ at $25^\circ C$)	Constituents (parts per million)								
								Boron (Bm)	Per cent sodium Na x 100 Na + Mg + Ca + Na	Sulfate radicle (SO_4^{2-})	Chloride radicle (Cl^-)	Bicarbonate radicle (HCO_3^-)	Nitrate radicle (NO_3^-)	Calcium (Ca^{2+})	Magnesium (Mg^{2+})	Sodium (Na^+)
S502-0-12	San Gabriel River, E. of Long Beach. Sampled at Ocean Ave. bridge. Small flow.	S502	5	767	3, 2.32	300	1.80	72	63.55	5.46	284	0	81	52	497	
S959-N-11	Open drain, E. of Signal Hill. Sampled at E. side of Cerritos Ave., 0.4 mile S. of Spring St. Discharge estimated.	S959	25	1 ±	242	8, 20/31	37.8	69	195	20	2	Tr.	18	5	68	
S1062-L-13	Coyote Creek, E. fork W. of Buena Park. Sampled at Artesia St., 0.23 mile W. of Valley View Ave. Discharge from L. A. C. F. C. D. racing station 41, below P. E. Ry. bridge near Artesia St.	S1062	50	0.15	558	3, 24.32	92.1	0.44	50	329	94	64	10	65	19	111
S-1054-M-13	Coyote Creek, E. of Artesia. Sampled at Orangehorpe Ave. bridge, 0.18 mile E. of Carnetina Ave. U. S. D. A. and D. W. R. analyses on 3/2/32 are from same sample. Discharge estimated 1/31/33. Small flow on other dates.	S1054	40	...	744	2, 15.32	28.1	2.24	73	345	674	23	79	50	487	
S1028-N-13	Coyote Creek, W. of Los Alamitos. Sampled at Spring St. bridge, 0.20 mile W. of Los Alamitos Blvd. Small flow.	S1028	20	...	766	3, / 2.32	37.0	2.34	75	357	744	82	20	33	39	1404
S1061-L-13	Open drain. Along N. road just NW. of Buena Park. Sampled at NE. corner of Marquardt Ave. and Center St. Small flow.	S1061	66	...	738	2, 12.32	95.9	0.34	-	223	106	-	-	-	-	-
S1636-K-13	George F. Getty Co., SW. of Santa Fe Springs. Oil well waste water from sump hole at intersection of Lakeland Road and A. T. & S. F. Ry. main line. Waste water from Santa Fe Springs oil fields.	S1636	155	...	1345	9, 5.32	942	9.40	94	369	2,920	32	0	55	26	1,893

^a Includes small equivalent quantity of Carbonate (CO_3^{2-}).^b Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.^c Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.

TABLE 14. WELLS IN REDONDO-LONG BEACH AREA

Well number	Location and description	Location number	Eleva- tion of ground	Total depth of well in feet	Labora- tory number	Date	Specific elec- trical conduc- tance $K \times 10^6$ at 25°C)	Boron ppm	Per cent sodium $Na \times 100$ $Ca + Mg$ + Na	Constituents (parts per million)					
										Chloro- borate radicle (HCO ₃)	Sul- phate radicle (SO ₄)	Nitrate radicle (NO ₃)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B-28-J-6	Palisades Del Rey Water Co., Plant 1, Well 1, S. of Venice; 120 feet W. of Pershing Blvd. (Coast Blvd.), 50 feet N. of Moscow St., 20 feet N. of Well 2, Plant 1, Use: Municipal standby. Casing: 16 inches. Perforated 97-133. L. A. D. of W. & P. No. 9-B-46.	1264	83	*x208	(d)	10/21/29	-	-	59	344	100	42	20	e122	
					(d)	10/24/29	-	-	44	333	92	77	14	e91	
					(d)	11/18/29	-	-	286	342	100	30	-	-	
					(d)	10/13/30	-	-	181	326	85	-	-	-	
					(d)	5/14/32	-	-	168	106	-	-	-	-	
					999	5/14/32	71 1	0 13	53	168	103	30	27	38	85
					(d)	Oct. 1929	-	-	337	92	-	-	-	-	
					(d)	5/14/32	84 4	0 18	49	314	98	42	1	53	101
					1000	5/14/32	-	-	-	-	-	-	-	-	-
B-28a-J-6	Palisades Del Rey Water Co., Plant 1, Well 2, S. of Venice; 120 feet W. of Pershing Blvd. (Coast Blvd.), 60 feet N. of Moscow St., 20 feet S. of Well 1, Plant 1, Use: Municipal standby. Casing: 14 inches. Perforated 101-143; 158-176.	1264A	83	*216	(d)	10/21/29	-	-	73	832	100	32	62	19	e286
					(d)	11/18/29	-	-	46	334	98	33	67	17	e94
					(d)	10/13/30	-	-	51	343	123	29	-	-	-
					(d)	10/21/30	-	-	352	89	-	-	77	11	e89
					(d)	4/1/31	-	-	345	94	29	-	65	18	e14
					(d)	6/8/31	-	-	363	87	28	0	56	23	100
					(d)	7/31/31	86 8	0 26	48	336	98	32	Tr.	57	101
					(d)	8/24/32	87 2	0 22	46	336	98	32	1	58	97
					1001	5/14/32	86 2	0 22	-	-	-	-	-	-	-
B-28c-J-6	G. P. Barnard, S. of Venice; 200 feet NE. of Gulalia Ave., 350 feet NW. of Moscow Ave., 1700 feet S. of Manchester Blvd., one-half mile NE. of Pershing Drive (Coast Blvd.). Use: Domestic. Casing: 12 inches. Perforated 185-203. L. A. D. of W. & P. No. 9-B-43.	1264C	126	*x250	(d)	10/21/29	-	-	63	392	100	60	-	54	e152
					(d)	10/24/29	-	-	348	82	-	-	-	-	-
					(d)	11/18/29	-	-	58	367	50	-	64	-	55
					(d)	1/8/30	-	-	45	309	86	46	-	56	e22
					(d)	4/3/30	-	-	45	357	80	65	-	86	e98
					(d)	6/3/30	-	-	47	355	64	58	-	80	e96
B-28d-J-6	Los Angeles Extension Land Co. (formerly Frik Martin Co.—Cotina Ranch), N. of El Segundo; 0.25 miles S. of Manchester Ave., 1.35 miles W. of Arizona Ave., 0.06 mile W. of Lincoln Blvd., at Manchester Ave. Use: Not used and now capped; formerly domestic and irrigation. Casing: 10 inches. Old oil well temporarily converted to water well. Equipment removed in 1929. Water had H ₂ S odor.	1284	162	x400	(d)	10/24/29	-	-	340	89	-	-	-	-	-
B-33-K-6	City of El Segundo, Well 1, El Segundo; 120 feet S. of Holly Ave., 110 feet E. of Lomita St., Use: Municipal. Casing: 16 inches. Perforated 236-256, 290-320. L. A. D. of W. & P. No. 9-D-3.	1297	173	*x355	(d)	12/ 6/29	-	-	29	132	100	28	-	61	e37
					(e)	4/ 4/30	-	-	42	297	92	23	-	59	e50
					(f)	3/28/30	-	-	35	214	96	33	-	80	e60
					(g)	5/ 9/30	-	-	35	250	100	27	-	66	e35
					(h)	6/ 9/30	-	-	29	249	124	27	-	98	e60
					(i)	11/25/30	-	-	40	282	92	14	-	59	e54
					(j)	2/13/31	-	-	36	223	98	0	-	61	e67
					(k)	3/16/31	-	-	38	312	88	7	-	67	e66
					(l)	4/ 6/31	-	-	38	236	128	33	-	71	e72
					(m)	6/18/31	-	-	110	200	-	-	-	-	-
					(n)	7/16/31	-	-	254	94	-	b20	-	-	-
B-33a-K-6	City of El Segundo, Well 2, El Segundo; 250 feet E. of Lomita St., 50 feet W. of Maryland Ave., 120 feet S. of Holly Ave. Use: Municipal. Casing: 16 inches. Perforated 210-220; 230-244; 278-300. L. A. D. of W. & P. No. 9-D-2.	1297A	170	*x503	(d)	1/ 7/30	-	-	23	252	98	18	-	88	e39
					(d)	9/11/30	-	-	45	286	104	19	-	66	e88
					(d)	3/ 9/31	-	-	58	260	123	17	-	60	e108
					(d)	6/18/31	-	-	270	92	-	-	-	-	-
					(d)	7/16/31	-	-	268	86	10	-	-	-	-
B-33b-K-6	City of El Segundo, Well 3, El Segundo; 25 feet S. of Holly Ave., 25 feet E. of Lomita St. Use: Municipal. Casing: 16 inches. Perforated 218-250; 291-301. L. A. D. of W. & P. No. 9-D-1.	1297B	170	*x370	(d)	11/ 5/29	-	-	52	311	104	35	-	68	e104
					(d)	7/16/31	-	-	41	192	114	48	-	56	e60
					(d)	10/ 3/31	75 7	-	41	186	110	23	-	67	e55
					(d)	3/29/32	73 8	0 16	41	198	112	49	-	57	e72
					(d)	11/ 8/29	-	-	44	342	90	18	-	80	e57
					(d)	12/ 5/29	-	-	42	336	88	3	-	66	e17
					(d)	1/ 7/30	-	-	59	288	92	9	-	41	e102
					(d)	3/ 4/30	-	-	37	346	96	5	-	71	e71
					(d)	4/ 5/30	-	-	21	310	104	18	-	103	e43
					(d)	5/ 8/30	-	-	46	310	110	9	-	74	e88
					(d)	6/ 9/30	-	-	50	279	100	14	-	131	e131
					(d)	7/ 7/30	-	-	62	331	126	7	-	47	e7
					(d)	11/25/30	-	-	40	328	90	8	-	67	e74
					(d)	3/16/31	-	-	38	334	112	8	-	76	e77
					1838	3/14/33	-	-	81 6	0 20	-	-	-	-	-
					1838	3/14/33	-	-	81 6	0 20	-	-	-	-	-

TABLE 14. WELLS IN REDONDO-LONG BEACH AREA—Continued

Well number	Location and description	Elevation of ground	Location number	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)								
							Specific electrical conductivity ($K \times 10^{-4}$ at 25°C)	Boron ppm	Per cent sodium	Bicarbonate radicle ($Ca + Mg + Na$)	Nitrate radicle (NO_3^-)	Chloride radicle (Cl^-)			
B-33f-K-6	Standard Oil Co., Well 7, El Segundo; 2500 feet S. of El Segundo Blvd.; 430 feet E. of Main St., extended; 200 feet E. of tanks; 408 and 9408. Use: Industrial. Casing: 16 inches. Perforated 214-302; cemented at 400-475. L. A. D. of W. & P. No. 9-D-11.	1239	135	*x75	(*)	11/8/29	-	-	31	236	104	6	68	17	e49
				(*)	12/5/29	-	-	52	380	100	6	-	66	13	e110
				(*)	1/7/30	-	-	42	300	102	3	-	65	16	e75
				(*)	3/4/30	-	-	38	306	100	10	-	69	19	e71
				(*)	4/5/30	-	-	30	264	100	8	-	70	20	e50
				(*)	4/20/30	-	-	38	313	101	Tr.	-	66	19	e70
				(*)	5/9/30	-	-	30	226	105	2	-	68	16	e46
				(*)	6/9/30	-	-	55	121	116	4	-	25	14	e48
				(*)	7/7/30	-	-	47	236	157	8	-	65	15	e92
				(*)	11/14/30	-	-	39	305	147	8	-	79	21	e85
				(*)	12/9/30	-	-	36	304	110	2	-	72	21	e68
				(*)	2/13/31	-	-	47	284	136	14	-	70	14	e85
				(*)	2/28/31	-	-	45	272	136	10	-	72	13	e88
				(*)	3/16/31	-	-	35	299	104	10	-	73	20	e97
				(*)	4/6/31	-	-	38	233	139	12	-	78	19	e77
				(*)	6/18/31	-	-	34	203	110	8	-	70	24	-
				(*)	7/31/31	80.3	-	36	293	108	8	-	70	22	66
				(*)	8/31/32	81.1	0.13	36	302	112	12	0	70	22	69
				(*)	9/30/32	81.6	0.12	35	293	114	10	0	72	23	69
				(*)	10/30/32	82.8	0.09	-	296	112	-	-	-	-	-
				(*)	10/30/32	83.1	0.16	35	246	112	10	0	70	23	66
				(*)	11/13/32	82.8	0.16	35	246	112	10	0	72	24	67
				(*)	11/13/32	82.9	0.11	-	299	114	14	0	71	23	68
				(*)	11/13/32	83.8	0.10	35	296	114	14	0	71	23	68
				(*)	12/6/32	84.0	0.14	-	302	112	-	-	-	-	-
				(*)	13/6/32	84.0	0.14	-	269	112	-	-	-	-	-
				(*)	14/6/32	83.5	0.16	-	266	112	10	0	70	23	69
				(*)	15/5/32	83.5	0.16	-	299	112	5	0	72	24	67
				(*)	15/5/32	83.5	0.16	-	296	110	17	0	69	22	68
				(*)	16/5/32	82.6	0.14	-	296	110	17	0	69	22	68
				(*)	17/6/32	82.1	0.14	-	296	110	17	0	69	22	68
				(*)	17/6/32	82.5	0.12	-	306	110	17	0	72	23	68
				(*)	18/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	19/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	20/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	21/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	22/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	23/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	24/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	25/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	26/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	27/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	28/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	29/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	30/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	31/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	32/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	33/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	34/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	35/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	36/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	37/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	38/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	39/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	40/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	41/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	42/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	43/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	44/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	45/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	46/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	47/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	48/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	49/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	50/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	51/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	52/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	53/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	54/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	55/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	56/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	57/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	58/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	59/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	60/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	61/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	62/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	63/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	64/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	65/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	66/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	67/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	68/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	69/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	70/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	71/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	72/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	73/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	74/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	75/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	76/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	77/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	78/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	79/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	80/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	81/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	82/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	83/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	84/6/32	83.0	0.12	-	303	110	17	0	72	23	68
				(*)	85/6/32	83.0	0.12	-	303	110	17	0	72	23	68</td

TABLE 14. WELLS IN REDONDO-LONG BEACH AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^6$ at $25^\circ C$)	Constituents (parts per million)									
								Boron ppm	Per cent sodium Na $\times 100$ Ca + Mg + Na	Bicarbonate radonate (Ca + Na)	Sulfate radonate (SO_4)	Nitrate radonate (NO_3)	Chloride radonate (Cl)				
B-3Sh-J-7	City of Inglewood, Well 15, Inglewood; 163 feet NW of A. T. S. F. Ry.; 600 feet NE of Centinela Ave. Use: Municipal. Casing: 18 inches. Perforated 136-145; 152-168.	1352H	138	*382	(*)	7/16/31	.....	.....	234	52	180	.....	.....		
B-41-K-7	City of Hawthorne, Well 1, Hawthorne; 265 feet W. of Ramona Ave., 675 feet N. of El Segundo Blvd. Use: Municipal. Casing: 12 inches. Perforated 320-364; 405-412.	1348	90	*x569	(*)	7/16/31	.....	.....	293	32	15	.....	.....		
B-41a-K-7	City of Hawthorne, Well 2, Hawthorne; 75 feet W. of Ramona St., 665 feet N. of El Segundo Blvd. Use: Municipal. Casing: 14 inches. Perforated 321-360; 400-403; 454-469; 622-634.	1348A	95	*x679	(*)	7/16/31 7/31/31	56 4	47	327	31	6	0	37	17			
B-44-K-8	C. A. Van Nest, Hawthorne; 35 feet S. of June St., 300 feet W. of Walnut Ave. Use: Domestic. Casing: 6 inches.	1366	81	x160	1298	8/29/32	76 1	0 08	.....	222	98	.....	.....	67		
B-48a-K-8	O. T. Johnson Ranch, Well 3, NE of Hawthorne; 50 feet S. of Imperial Highway; 400 feet E. of Arlington Ave. Use: Irrigation. Casing: 12 inches. Perforated 233-244; 320-344.	1386A	125	*407	208	8/ 6/31	56 3	.....	35	253	11	31	0	49	18	47
B-54-K-8	American States Water Service Co. (formerly Gardena Valley Water Co.), Bellona Plant, N. of Athens; 150 feet S. of El Segundo Blvd.; 222 feet W. of Bulldog Ave. Use: Municipal. Casing: 16 inches. Perforated 273-277; 286-320; 447-500; 525-533.	1408	135	*x564	(*)	12/ 6/30	.....	.....	29	.....	32	47	.....	61	15	e40
B-54c-K-8	American States Water Service Co., Well 3, SE. of Athens; 6 feet S. of 135th St., 400 feet W. of Vermont Ave. Use: Municipal. Casing: 16 inches. Perforated 240-380; 408-412; 444-450; 500-508; 536-582.	1409A	83	*x582	(*)	12/ 6/30 8/ 6/31	56 8	34	31	82	78	0	66	14	52
B-54g-L-9	Mrs. B. Leitch, Well 1, N. of Gardena, 200 feet N. of Rosecrans Ave., 115 feet E. of Hoover St., extended. Use: Domestic. Casing: 8 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/14/31 are from same sample.	1419	92	x160	(*)	6/16/31 (*) 11/14/31	.....	.....	268	62	55	.....	.....	58	17	58
B-54-L-6	City of Manhattan Beach, Well 1, Manhattan Beach; 15 feet W. of Sepulveda Blvd., 150 feet S. of 8th St. Use: Municipal. Casing: 16 inches. Perforated 221-240; 527-541.	701B	139	*x1,000	(*)	6/20/31	.....	.....	283	290	52	24	1	69	17	58
B-54a-L-6	City of Manhattan Beach, Well 2, Manhattan Beach; 20 feet N. of 8th St., 250 feet W. of Sepulveda Blvd. Use: Municipal. Casing: 16 inches. Perforated 223-252; 244-263.	701	155	*339	(*)	6/20/31 8/24/32	69 1	0 18	42	277	78	24	24	89	.....	.....
B-54b-L-6	City of Manhattan Beach, Well 3, Manhattan Beach; 75 feet W. of Sepulveda Blvd., 15 feet S. of 8th St. Use: Municipal. Casing: 14 inches. Perforated 214-218; 225-235. L. A. D. of W. & P. No. 8-A-2. Use: Domestic. Casing: 6 inches.	701A	150	*547	(*)	11/13/29 12/ 9/29	.....	.....	47	254	67	15	2	51	15	62
B-54c-L-6	City of Manhattan Beach, Well 4, Manhattan Beach; 255 feet S. of 8th St., 235 feet W. of Sepulveda Blvd. Use: Municipal. Casing: 16 inches. Perforated 239-248; 248-258.	701C	155	*617	(*)	6/20/31 7/21/31	70 8	.....	47	247	89	23	2	51	15	62
B-55-L-7	Herman Vetter, Hermosa Beach; 125 feet N. of 16th St., 400 feet W. of Camino Real, 300 feet E. of A. T. & S. F. Ry. Use: Domestic. Casing: 6 inches.	712	100	*x502	(*)	7/15/31 7/21/31	62 9	.....	40	248	59	103	110	51	15	75
B-55d-L-7	California Water Service Co., Plant 5, Well 6, Redondo Beach; 50 feet E. of Pier Ave. between Carnegie and Gould Aves. Two wells in same pit. Use: Municipal. Casing: 12 inches. Perforated 190-742.	712A	105	273	(*)	7/15/31 7/21/31	64 9	.....	39	258	61	35	0	56	16	62
B-55e-L-7	Walter Haviland, Redondo Beach; 80 feet W. of Pier Ave., 110 feet N. of Ormand Lane. Use: Not used. Casing: 12 inches. Samples are from 140, 150, 160 feet, and surface of water, respectively.	713	125	x192	(*)	11/ 9/31 11/ 9/31	.....	.....	253	60	103	103	0	56	16	62

TABLE 14. WELLS IN REDONDO-LONG BEACH AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)									
							Specific electrical conductance ($K \times 10^3$ at 25°C)	Boron (ppm)	Per cent sodium ($\text{Na} \times 100$)	Bicarbonate ($\text{Ca} + \text{Mg}$ + Na)	Chloride (Cl)	Sulfate (SO ₄)	Nitrate radicle (NO ₃)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B-88f-L-7	California Water Service Co., Plant 5, Well 5, Redondo Beach; 50 feet E. of Pier Ave., between Carnegie and Gould Aves.; Two wells in same pit. Use: Municipal. Casing: 12 inches. Gravel 193-200; 255-257; 277-281; 285-300.	712B	100	*340	(e)	7/17/31	.....	.....	254	58	130	.....	.....	.....	.....
B-Sub-M-7	Southern California Edison Co., Ltd., Hermosa Beach; 125 feet N. of Anita St.; 300 feet E. of Camino Real, back of ice plant. Use: Abandoned. Casing: 14 inches. Perforated 200-235. Both samples taken from surface of water.	714	82	*x281	(d) (g)	6/27/31 7/14/31	.....	.....	171	57 53	.....	.....	.....	.....	.....
B-86e-M-7	California Water Service Co., Hermosa-Redondo Well 3, Redondo Beach; 30 feet E. of Maria St.; 150 feet N. of Garnet St.; 0.17 mile N. of Torrance Blvd. Use: Municipal. Casing: 18 inches. Perforated 228-232; 232-255; 255-259.	725	150	*x526	144	7/21/31	59.4	46	244	71	3	1	42	17	71	
B-86g-M-7	Redondo Union School, Redondo Beach; 40 feet S. of P. E. Ry on W. Line of Maria St., extended. Use: Irrigation and domestic. Casing: 20 inches. Perforated 224-230; 250-267.	725C	120	*x336	(e)	7/21/31	55.0	0.10	40	232	60	0	43	18	55	
B-87-M-7	California Water Service Co., Old Well 5, Redondo Beach; 150 feet N. of Pearl St.; 90 feet W. of Irene Ave., interconnected at 90-foot depth to Old Well 3, 40 feet north. Use: Not used. Casing: 14 inches. Perforated 210-241. Samples on 6/18/31 were taken at surface of water and at depth of 35 feet. Samples on 7/14/31 were from depths of 120, 200, and 225 feet, respectively. Samples on 10/6/31 were from depths of 110 and 223 feet. Samples on 4/21/32 were from depths of 110 and 230 feet.	716	96	*x306	(e) (g)	6/18/31 6/27/31 7/14/31	55.5 35.5 33.8	0.19 0.16 0.17	43 44 44	223 223 220	57 57 59	12 16 17	0	43	13 15	56 54
B-88-M-7	California Water Service Co., Well 11, Huntington Well, SE of Redondo; .7 miles W. along Redondo-Wilmington Blvd.; 800 feet N. of intersection of Redondo-Wilmington Blvd. and Paso de Gracia, back of Rifle Range. Use: Formerly municipal, not used since 1932. Casing: 18 inches. Perforated 224-338.	728	75	*x401	(e)	7/16/31 7/21/31	79.1	.....	52	346	96	0	46	23	106
B-89b-L-7	California Water Service Co., Plant 8, Pump 11, NW. of Redondo Beach; 200 feet S. of Redondo Blvd. (Gould Ave.); 160 feet W. of Felton Lane. Use: Municipal. Casing: 16 inches. Perforated 173-327. L. A. D. of W. & P. No. 8-A-8.	732	100	*x449	(e)	11/13/29 12/9/29	.....	.....	41	242	66	49	.....	61	12
B-90h-L-7	California Water Service Co., Plant 12, Well 12, Pump 12. Redondo Beach; 500 feet N. of Redondo-Riverside Blvd. (Gould Ave.); 40 feet E. of Blossom Lane, 140 feet N. of Matthews Ave. Use: Municipal. Casing: 16 inches. L. A. D. of W. & P. No. 8-A-7.	722B	110	500	(e) (f)	10/24/30 12/13/31 1/6/31 4/6/31	.....	.....	42	224S	74	31	.....	64	9
B-91-L-7	American States Water Service Co., Well 18, Lawndale; 140 feet S. of Chicote St. (Amestoy Ave.), 15 feet W. of 5th Ave. Use: Domestic. Perforated 375-390.	740	60	*x438	170	7/23/31	56.2	.....	43	320	27	Tr.	41	20	64

TABLE 14. WELLS IN REDONDO-LONG BEACH AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity (K x 10 ⁻⁴ at 25°C)	Constituents (parts per million)							
								Boron ppm	Per cent Boron	Chloride radicle (Cl ⁻)	Nitrate radicle (NO ₃ ⁻)	Sulfate radicle (SO ₄ ²⁻)	Calcium (Ca ²⁺)		
B-94-M-7	Bob Veda (Dr. Ellwood lease), SE. of Redondo Beach; 1 mile W. of Hawthorne Ave., 500 feet S. of Redondo-Long Beach Road, 1,100 feet E. of SE. corner of Redondo Beach City Boundary. Use: Irrigation. Casing: 16 inches. Perforated 305-314, 330-335, 350-355; 377-390.	737	110	*x416	(4)	12/18/31 588 969	58.5 0.27 0.20	58 0 56	312 213 290	71 50 52	0 0 0	34 34 34	11 13 13	83 81	
B-94c-M-7	C. H. Quandt, Well 2, SW. of Torrance; 55 feet E. of Ocean Ave., 615 feet S. of Redondo-Long Beach Blvd.; 50 feet S.E. of Well 1. Use: Irrigation and domestic. Casing: 14 inches. Perforated 241-275.	747A	80	*x300	(4)	7/23/31 164 11/9/31	56.7 -----	63	284 273	46 43	1 -----	Tr. -----	24 -----	12 -----	88 -----
B-95-N-7	Bob Veda (Dr. Ellwood lease). Well 3, SE. of Redondo Beach; 600 feet N. of Redondo-Wilmington Blvd., 800 feet E. of road in road, 0.55 mile W. of Hawthorne Ave. Use: Irrigation and domestic. Casing: 12 inches. Perforated 282-297; 346-360.	739	108	*x367	(4)	7/23/31 173 842 965	102.2 102 104	41 0.32 0.24	415 420 427 430	126 142 130 130	17 0 14 15	0 0 0 0	70 71 70 70	36 34 36 36	103 101 100
B-100D-N-8	Union Oil Co., SW. of Torrance; 100 feet S. of Lomita Blvd., 0.4 miles NW. of Pennsylvania Ave., inside tank farm. Use: Fire prevention and domestic. Casing: 14 inches. Gravel 188-197, 230-300.	769	77	*x660	(4)	7/23/31 174	60.6 -----	72	265 265	67 0	0 0	19 19	11 11	107 -----	
B-103 M-8	Columbia Steel Co., Well 2, Torrance; 500 feet S. of 208th St., 1,100 feet E. of Arlington Ave. Use: Industrial. Casing: 14 inches. Perforated 122-160; 293-306; 330-450.	785	65	*x653	(4)	12/8/32 1586	55.1 0.19	46	238 238	48 48	4 4	2 2	34 34	17 17	60 60
B-103a-M-8	Columbia Steel Co., Well 1, Torrance; 500 feet E. of Arlington Ave., 600 feet S. of 208th St. Use: Industrial and domestic. Casing: 14 inches. Perforated 293-304; 350-364; 380-385; 577-598.	785A	67	*x613	(4)	169 7/23/31	51.6 -----	47	244 244	39 39	6 6	1 1	32 32	17 17	60 60
B-103b-L-8	Southern California Edison Co., Ltd., Torrance; 250 feet W. of Western Ave., 300 feet N. of 149th St. (Domínguez St.). Use: Industrial. Casing: 12 inches. Perforated 470-485; 522-525.	794	57	*x550	(4)	7/23/31 165	44.6 -----	45	241 241	27 27	3 3	Tr. -----	35 35	12 12	52 52
B-106-L-8	American States Water Service Co. (formerly Gardena Valley Water Co.), Well 2, Gardena; 50 feet S. of Amesbury Ave., 30 feet W. of Esther St., extended in wooden pump house. Use: Municipal. Casing: 16 inches. Gravel 190-220; 370-680.	800	53	*x680	(4)	12/6/30 166 7/23/31	55.7 -----	32 34	229 229	47 63	0 0	59 58	15 15	45 45	
B-106f-L-9	Gordon Ranch, NE. of Gardena; 50 feet W. of Harbor Blvd. (Main St.), 2,100 feet N. of Riverside-Redondo Blvd., under derrick W. & P. No. 7-A II.	820A	120	x299	(4)	10/27/30 3/17/31	-----	20 51	199 224	64 100	80 136	----- -----	91 85	10 4	c109 c109
B-106p-L-9	J. W. Goode, Gardena; 75 feet S. of Olive St. (161st St.), 130 feet E. of Menlo Ave., 750 feet E. of Vermont Ave. Use: Irrigation.	811B	41	x40	(4)	1/13/33 1674	62.2 0.12	35	*x265 *x265	41 41	51 51	2 2	58 58	18 18	54 54
B-107b-L-8	Roosevelt Memorial Park, S. of Gardena; 400 feet S. of 1824 St., 400 feet W. of Normandie Ave. Use: Irrigation. Casing: 10 inches. Perforated 326-346; 594-604. L. A. C. F. C. D. and D. W. R. analyses on 11/14/31 are from same sample.	803	44	*x679	(4)	7/15/31 11/14/31 521 11/14/31	112 0.16	----- ----- ----- -----	226 219 229 229	80 69 69	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----	
B-107c-L-9	William C. Giboney (lessee), SE. of Gardena; 0.23 mile S. of 182d St., 100 feet E. of Figueroa St. Use: Domestic. Casing: 5-foot driven shaft. L. A. C. F. C. D. and D. W. R. analyses on 11/14/31 are from same sample.	813	26	25	(4)	7/15/31 11/14/31 522 11/14/31	112 0.16	----- ----- ----- -----	254 283 241 241	182 183 169 169	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----	
B-107d-L-9	Ren Ayala, SE. of Gardena; 300 feet W. of Figueroa St., 300 feet N. of 182d St. Use: Irrigation.	812	28	42	(4)	Dec. 1931 4/6/32 1033 6/3/32	209 206 204 0.24	28 0.22 0.20 0.20	540 473 467 467	323 371 355 355	20 20 185 185	188 188 66 66	134 134 164 164	134 134 164 164	
B-108-M-8	F. S. Austin, E. of Torrance; 200 feet N. of East Road, 130 feet E. of Walnut St. Use: Not used. Casing: 7 inches.	805	35	x	(4)	6/23/31	----- ----- ----- -----	----- ----- ----- -----	141	46	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----	----- ----- ----- -----	

TABLE 14. WELLS IN REDONDO-LONG BEACH AREA—Continued

TABLE 14. WELLS IN REDONDO-LONG BEACH AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)									
							Specific electrical conductance at 25°C	Per cent sodium	Boron ppm	Na x 100 (Ca + Mg + Na)	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
B-114-M-9	Jue Lovia. SW. of Gardena; 0.34 mile N. of Carson St., 400 feet N. of 216th St., 100 feet E. of Grace Ave. Use: Domestic and irrigation. Casing: 12 inches. Drilled.	836	18	x36	(e)	6/16/31 11/14/31 526	454 491 0.28	44	250 250 0.28	758 870 44	1,356 0 253	0 0 253	190 191 408	331 327 0	540 574	
B-115-N-9	Ana-May Kreysler, N. of Wilmington; 450 feet S. of Rocha St., 500 feet W. of Avian Blvd. Use: Domestic. Casing: 12-10 inches. Perforated 454-554.	839A	38	x550	(d) (e)	6/12/31 11/19/31 16/6	506 546 1.13/33	43.7 0.01	212 222 220	32 34 30	1,065 1,065 1,065	0 1,503 1,101	316 246 223	317 214 0	688 687 681	
B-115g-N-9	Southern California Edison Co., Ltd. NE. of Wilmington; 100 feet S. of Rocha St., 300 feet E. of Broad St. Use: Industrial. Casing: 12 inches. Perforated 461-550.	858B	35	x800	(f)	1/13/31 15/6	572 572 0.35	45	282 285 286	1,047 1,047 1,047	1,504 1,504 1,504	0 0 0	336 336 0	223 223 0	687 687 681	
B-118-M-10	Richfield Oil Co., Well 3, W. of Long Beach; 1,060 feet N. of point on Rocha St., 1,700 feet W. of Alameda St. at refinery. Use: Industrial. Casing: 24 inches. Perforated 450-535; 500-605. L. A. D. of W. & P. No. 7-D-56.	875	34	x175	(d)	6/8/31 555	62.6	45	250 223	126	0	Tr.	53	17	76	
B-119-M-9	Jesus Cruz. S. of Compton; 50 feet S. of Los Angeles St. (Delano St.), 600 feet W. of Alameda St. Use: Domestic. Casing: 10 inches. W. S. P. 138, No. 839 Downey Quad.	867	22	x290	(d)	6/8/31 15/7 15/6	63.5 63.5 63.5	40	211 198 198	30 25 25	13 4	20 21	5	73	64	
B-119b-M-10	J. P. Hoepner. NE. of Wilmington; 1,000 feet S. of Carson St., 150 feet E. of Wilmington Ave., 0.4 mile N. of 223d St. (See domestic. Casing: 6 inches. L. A. C. F. C. D. and D. W. R. analyses on 11-7-31 are from same sample.	867A	22	x461	(d) (e)	6/8/31 11/7/31	...	64	274 277 277	38 39 39	59 59 59	0	54	18	64	
B-119j-M-10	Dominguez Water Co., Well 2 (old series). S. of Compton; 10 feet S. of Carson St., 300 feet E. of Alameda St. Use: Capped well and not used. Casing: 12 inches. Perforated 105-119.	870F	28	*164	(d)	June 1931	...	...	203 223	34 38	...	...	...	...	...
B-119k-M-10	Dominguez Water Co., Well 10 (new series). S. of Compton; 20 feet S. of Carson St., 1,050 feet E. of Alameda St. Use: Municipal. Casing: 16 inches. Perforated 100-135.	876G	28	*158	(d) (e)	6/8/31 7/23/31 17/1	75.7	33	268 253 253	37 52 52	300 44	108 108	Tr.	83	17	
B-119L-M-10	Dominguez Water Co., Well 8 (new series). S. of Compton; 20 feet S. of Carson St., 1,060 feet E. of Alameda St. Use: Municipal. Casing: 12 inches. Perforated 887-981.	876I	28	*1013	(d) (e)	6/8/31 16/8	36.6	62	174 174 174	39 39 39	200 25 25	9 9 9	1	20	7	
B-119q-M-10	P. M. Bangle. NE. of Long Beach; 100 feet S. of 223d St. (Wilmington St.), 300 feet E. of Alameda St. Use: Domestic. Casing: 5 inches. Perforated 107-136. L. A. C. F. C. D. and D. W. R. analyses on 11-7-31 are from same sample.	877	24	x136	(d) (e)	6/8/31 547	66.4	...	212 221 221	32 45 45	...	...	...	...	...
B-120f-N-10	Mr. Hirotsuki. NW. of Long Beach; 0.20 mile N. of Willow St., 0.25 mile W. of Webster Ave., 0.5 mile W. of Santa Fe Ave., Use: Irrigation. Casing: 8 inches. Perforated 140-147.	8793	21	*165	(d) (e)	6/19/31 Nov. 1931	...	...	210 253 253	41 52 52	209 44	108 108	Tr.	83	17
B-120h-N-10	Chinese tenant. NW. of Long Beach; 0.08 miles S. of Willow St., 0.25 mile W. of Webster Ave., 0.5 mile W. of Santa Fe Ave., Use: Irrigation and domestic. Casing: 12 inches. Perforated 107-130; 140-145. L. A. C. F. C. D. and D. W. R. analyses on 11-7-31 are from same sample.	879	17	x170	(d) (e)	10/24/29 15/8 15/8	87.9	34	282 320 320	53 64 64	311 311 311	116 0	88	24	76	
B-124-M-10	Oil Operators, Inc., Test Well 1. NW. of Long Beach; 800 feet N. of Wardlow Road, 0.25 mile E. of Santa Fe Ave. (See: Mr. Mullorn, 500 feet W. of 127th M. 10. Open casting in field. Use: Not used. Casing: 8 inches. Perforated 99-112. Samples on 12-9-30 and 6/23/31 were from surface of water. Samples on 10-5-31 were from depths of 45 and 115 feet, respectively.)	887C	27	x134	(d) (e)	12/9/30 399 400	75.9 1,053	0.20 1,63	342 355 355	72 75 75	332 3639 3639	0 0 0	747 218 0	1,075	57	
B-124f-M-10	Mr. Mullorn. NW. of Long Beach; 0.25 miles S. of 223d St., 0.2 mile W. of Santa Fe Ave. Use: Domestic and irrigation. Perforated 102-127.	887	26	*128	(d) (e)	Oct. 1929 12/9/30 16/9/31	...	...	342 355 355	72 75 75	332 3639 3639	0 0 0	747 218 0	1,075	57

TABLE 14. WELLS IN REDONDO-LONG BEACH AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^3$ at 25°C)	Constituents (parts per million)						
								Boron ppm	Percent sodium Na x 100 Ca + Mg Ca + Na	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
B-124g-M-10	Mrs. Myers, NW of Long Beach; 50 feet E. of Denver Ave., 300 feet S. of 23d St., (W)ilmington St., 0.22 mile E. of Santa Fe Ave., Windmill. Use: Domestic. Casing: 2 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/7/31 are from same sample.	887A	29	110	(4)	Oct. 1929	12/ 9/30 (4) 6/ 8/31 (4)	153	307	303	1,155	303	1,598	1,981
B-124h-M-10	Mr. Kawaiishi, NW of Long Beach; 300 feet N. of 223d St., 0.22 mile E. of Santa Fe Ave. Use: Irrigation. (Gravel 80-109. L. A. C. F. C. D. and D. W. R. analyses on 11/7/31 are from same sample.)	887B	30	*130	(4)	Oct. 1929	12/15/30 (4) 6/ 8/31 (4)	331	352	352	1,622	337	1,381	1,981
B-124j-M-10	S. D. Wilson, NW of Long Beach; 700 feet S. of 223d St., 500 feet W. of Santa Fe Ave. (Terris Ave.), near power line. Use: Irrigation, changing effect on crops noted by tenants. Casing: 12 inches. (Gravel 91-108. L. A. C. F. C. D. and D. W. R. analyses on 11/7/31 are from same sample.)	887E	26	*125	(4)	Oct. 1929	11/ 7/31 (4) 5/14/32	92.6	1,22	298	1,381	311	1,981	1,981
B-124k-M-10	R. W. Pindexter, NW of Long Beach; 25 feet S. of 223d St. (Wilmington St.), 1,000 feet E. of Santa Fe Ave. (Terris Ave.). Use: Irrigation. Casing: 8 inches.	887F	29	120	(4)	Oct. 1929	11/18/31 (4) 6/ 8/31 (4)	263	264	260	96	300	353	1,981
B-125-N-10	Chinese tenant, NW of Long Beach; 40 feet S. of 32d St., extended, 600 feet W. of Santa Fe Ave. (Terris Ave.). Use: Irrigation. Casing: 12 inches.	888A	23	x -	(4)	Oct. 1929	12/15/30 (4) 6/ 8/31 (4)	312	40	329	440	125	0	163
B-125a-M-10	Bell Ranch, NW of Long Beach; 50 feet N. of Wardlow St. at head of Delta St. Use: Domestic. Casing: 4 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/7/31 are from same sample.	888	26	-	(4)	Oct. 1929	11/ 7/31 (4) 5/13/32	558	1,18	445	498	101	0	164
B-125d-N-10	Manuel Pimentell, Long Beach; 660 feet E. of Santa Fe Ave. (Terris Road), 600 feet S. of Spring St. Use: Irrigation. Casing: 12 inches.	888D	21	x135	(4)	Oct. 1929	10/17/29 (4) 2/ 8/32	522	401	322	490	131	0	192
B-125-N-10	City of Long Beach, Silverado Well 1, NW of Long Beach; 50 feet S. of 32d St., 1,200 feet E. of Santa Fe Ave. Use: Proposed municipal, but not used. Casing: 26 inches. Perforated 506-500. Samples on 7/31/31, 8/4/31, 12/9/31 and 2/8/32 are from depths of 710, 918, 51, 250, 871, and 250 feet respectively. Those on 8/18/31, 8/19/31, and 1/7/32 are from pumping tests.	888H	27	*1074	(4)	Oct. 1929	7/31/31 (4) 8/ 4/31 (4) 8/18/31 (4) 8/19/31 (4) 12/ 9/31 (4)	65	222	188	29	131	0	41
B-126-N-10	Irwin Stewart, NW of Long Beach; 200 feet N. of Willow St. Use: Irrigation. Casing: 5 inches. L. A. C. F. C. D. and D. W. R. analyses on 11/7/31 are from same sample.	889B	21	x115	(4)	Oct. 1929	12/ 9/30 (4) 6/12/31 (4)	495	291	291	266	446	259	1,87
								478	42	464	266	351	0	187
								446	44	485	284	408	0	189
								555	561	555	284	413	1	210
								555	555	555	284	413	1	217
								557	557	557	280	436	0	265

TABLE I-4. WELLS IN REBONDO-LONG BEACH AREA—Continued

1250 feet N. of Wardlow St., 2,500 feet E. of Long Beach; 800 feet N. of Wardlow St., 2,500 feet E. of Santa Fe Ave. (Perris Ave.), 20 feet W. of dirt road extension of Pico Ave. Use: Test well for Oil Operators, Inc. Casing: 8 inches. Perforated 65-88. Sample on 11/17/31 was from surface of water.

TABLE 14. WELLS IN REDONDO-LONG BEACH AREA Continued

Well number	Location and description	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electric conductivity (K _s x 10 ⁻³ at 25°C)	Constituents (parts per million)							
							Boron (ppm)	Chloride radicle (Cl ⁻)	Sulfate radicle (SO ₄ ²⁻)	Nitrate radicle (NO ₃ ⁻)	Calcium (Ca ²⁺)	Magnesium (Mg ²⁺)		
B-127-M-10	H. E. Dickson, NW. of Long Beach; 190 feet S. of 223d St., 0.1 mile N. of west levee of Los Angeles River. Use: Not used. Casing: 6 inches. Samples on 11/17/31 were from surface of water and depth of 70 feet, respectively.	807J	28	x71	(4) 12/9/30 (4) 6/25/31 (4) 11/17/31 (4) 11/17/31	100 11/30/32	0.31	461	126	53 67 78 78	343 323 321	53 67 78 78		
B-130-N-7	Weston Ranch, Well 6A, NW. of Wilmington; 40 feet N. of Redondo-Wilmington Blvd., 0.3 mile E. of Hawthorne Ave., 50 feet W. of draw, 20 feet W. of H-130W-N-7. Use: Irrigation. Casing: 14 inches. Perforated 405-425.	250A	148	*x500	1588	11/30/32	111	461	126	53 67 78 78	343 323 321	53 67 78 78		
B-130h-N-7	Weston Investment Co., Well 6, NW. of Wilmington; 25 feet E. of Madison St., 800 feet S. of Redondo-Wilmington Blvd. Use: Irrigation. Casing: 14 inches. Perforated 290-306, 410-415, 424-445, 470-500.	250	170	*500	237	8/19/31	103 1	39	427	116	40	0	74	
B-131-N-8	Los Angeles County Water District No. 13, Well 1, NW. of Wilmington; 25 feet E. of Cypress St., 900 feet S. of Redondo-Wilmington Blvd. Use: Municipal.	271	150	x	167 (4) 4/21/32	97 8	60	406	123	2	0	38	23	
B-133-N-8	Palos Verdes Water Co., Well 1, W. of Wilmington; 200 feet N. of Anaheim St., 250 feet E. of P. E. Ry. Use: Municipal. Casing: 26 inches. Perforated 208-214; 332-610.	301	50	*x910	238 (4) 11/5/31	68 8	76	339	64	1	0	19	10	
B-133a-N-8	Palos Verdes Water Co., Well 1A, W. of Wilmington; 200 feet N. of Anaheim St., 255 feet E. of P. E. Ry.; 70 feet E. of Well 1. Use: Municipal. Casing: 26 inches. Perforated 400-650. Samples on 11/10/31 and 2/8/33 were from depth of 175 feet and surface of water, respectively.	301A	50	*x793	1804 (4) 2/8/33	67 2	0 32	110	86	249	69	38	99	
B-133b-O-8	Royal Palms Golf Club, Well 3, S. of Wilmington; 0.25 mile N. of Channel St., 1,000 feet W. of Gaffey Ave. Use: Irrigation. Casing: 16 inches. L. A. D. of W. & I. No. 3-A-16.	304	8	x208	(4) 5/23/30 (4) 12/12/30 (4) 6/23/31 (4) 3/19/31	— — — —	36	346	292	79	126	45	e128	
B-133d-O-8	Royal Palms Golf Club, Well 2, S. of Wilmington; 0.25 miles N. of Channel St., 1,200 feet W. of Gaffey Ave., 200 feet W. of Well 2. Use: Irrigation. L. A. D. of W. & I. No. 3-A-14.	304B	10	200	(4) 5/23/30 (4) 10/30/30 (4) 3/19/31	— — —	39	473	255	150	166	33	e143	
B-133f-N-9	Palos Verdes Estates, Wilmington; 0.43 mile E. of Frigate Ave., 250 feet N. of W. Anaheim St., 0.65 mile N. of P. E. Ry., E. of Gaffey St. Use: Not used. Casing: 24 inches. Gravel 280-300; 314-318; 624-682; 746-762. Samples of 9/29/31 were from depths of 300 and 630 feet, respectively.	312	30	*x910	(4) Oct., 1929 (4) 12/12/32 (4) 3/22/32	187 — —	0 48 — —	44	546	304	119	1	120	68
B-133g-N-8	Palos Verdes Water Co., Well 1-B, Wilmington; 200 feet N. of Anaheim St., 600 feet S. of P. E. Ry., measured from point on P. E. Ry. 200 feet N. of Anaheim St. Use: Irrigation. Casing: 16 inches, in bottom of 71-foot pit. Perforated 300-345.	314	45	*500	(4) 11/1/32	82 9	0 47	69	357	97	1	0	29	14
B-135i-N-9	City of Los Angeles, Lomita Well 4, W. of Wilmington; 0.56 mile W. from Frigate Ave. along L St., extended, thence 0.12 mile S., 10 feet W. of angle in private road. Use: Municipal. Casing: 16 inches.	311	20	716	(4) 3/19/31 (4) 3/25/32	66 5	0 36	71	295	95	3	0	18	4
B-133k-N-9	Union Oil Co., Wilmington; 0.23 miles W. of Frigate Ave., 280 feet S. of E. St. Use: Industrial. L. A. D. of W. & I. No. 3-A-13.	312A	25	1,018	(4) 10/15/29 (4) 11/15/29 (4) 1/6/30 (4) 2/25/30 (4) 4/28/30 (4) 10/30/30	— — — — — —	— — — — — —	89	510	450	17	25	14	e437
B-133l-N-9	City of Los Angeles, Lomita Well 4, W. of Wilmington; 0.56 mile W. from Frigate Ave. along L St., extended, thence 0.12 mile S., 10 feet W. of angle in private road. Use: Municipal. Casing: 16 inches.	313	20	716	(4) 3/19/31 (4) 3/25/32	66 5	0 36	71	295	95	3	0	18	4
B-133m-N-9	Union Oil Co., Wilmington; 0.23 miles W. of Frigate Ave., 280 feet S. of E. St. Use: Industrial. L. A. D. of W. & I. No. 3-A-13.	314	25	1,018	(4) 10/15/29 (4) 11/15/29 (4) 1/6/30 (4) 2/25/30 (4) 4/28/30 (4) 10/30/30	— — — — — —	— — — — — —	89	510	450	17	25	14	e438
B-133n-N-9	Union Oil Co., Wilmington; 0.23 miles W. of Frigate Ave., 280 feet S. of E. St. Use: Industrial. L. A. D. of W. & I. No. 3-A-13.	315	25	1,018	(4) 10/15/29 (4) 11/15/29 (4) 1/6/30 (4) 2/25/30 (4) 4/28/30 (4) 10/30/30	— — — — — —	— — — — — —	89	510	450	17	25	14	e439
B-133o-N-9	Union Oil Co., Wilmington; 0.23 miles W. of Frigate Ave., 280 feet S. of E. St. Use: Industrial. L. A. D. of W. & I. No. 3-A-13.	316	25	1,018	(4) 10/15/29 (4) 11/15/29 (4) 1/6/30 (4) 2/25/30 (4) 4/28/30 (4) 10/30/30	— — — — — —	— — — — — —	89	510	450	17	25	14	e440
B-133p-N-9	Union Oil Co., Wilmington; 0.23 miles W. of Frigate Ave., 280 feet S. of E. St. Use: Industrial. L. A. D. of W. & I. No. 3-A-13.	317	25	1,018	(4) 10/15/29 (4) 11/15/29 (4) 1/6/30 (4) 2/25/30 (4) 4/28/30 (4) 10/30/30	— — — — — —	— — — — — —	89	510	450	17	25	14	e441
B-133q-N-9	Union Oil Co., Wilmington; 0.23 miles W. of Frigate Ave., 280 feet S. of E. St. Use: Industrial. L. A. D. of W. & I. No. 3-A-13.	318	25	1,018	(4) 10/15/29 (4) 11/15/29 (4) 1/6/30 (4) 2/25/30 (4) 4/28/30 (4) 10/30/30	— — — — — —	— — — — — —	89	510	450	17	25	14	e442
B-133r-N-9	Union Oil Co., Wilmington; 0.23 miles W. of Frigate Ave., 280 feet S. of E. St. Use: Industrial. L. A. D. of W. & I. No. 3-A-13.	319	25	1,018	(4) 10/15/29 (4) 11/15/29 (4) 1/6/30 (4) 2/25/30 (4) 4/28/30 (4) 10/30/30	— — — — — —	— — — — — —	89	510	450	17	25	14	e443
B-133s-N-9	Union Oil Co., Wilmington; 0.23 miles W. of Frigate Ave., 280 feet S. of E. St. Use: Industrial. L. A. D. of W. & I. No. 3-A-13.	320	25	1,018	(4) 10/15/29 (4) 11/15/29 (4) 1/6/30 (4) 2/25/30 (4) 4/28/30 (4) 10/30/30	— — — — — —	— — — — — —	89	510	450	17	25	14	e444
B-133t-N-9	Union Oil Co., Wilmington; 0.23 miles W. of Frigate Ave., 280 feet S. of E. St. Use: Industrial. L. A. D. of W. & I. No. 3-A-13.	321	25	1,018	(4) 10/15/29 (4) 11/15/29 (4) 1/6/30 (4) 2/25/30 (4) 4/28/30 (4) 10/30/30	— — — — — —	— — — — — —	89	510	450	17	25	14	e445

TABLE 14. WELLS IN REDONDO-LONG BEACH AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)					
							Specific electrical conductivity (K x 10 ⁻³ at 25°C)	Boron ppm	Per cent sodium Na x 100 (Ca + Mg + Na)	Chloride radicle (Cl ⁻)	Sulfate radicle (SO ₄ ²⁻)	Nitrate radicle (NO ₃ ⁻)
B-133m N 8	Louis Dellati, NW of Wilmington; 600 feet S. of St. Olafomia Blvd., 50 feet E. of Broadwell St. Use: Domestic. Casing: $\frac{3}{4}$ inches.	300	57	307	(4) (3) (4) 1671	7/15/31 11/12/31 1/13/33	41.9	0.12	227 224 229	23	—	—
B-133n N 8	G. Loreson, NW of Wilmington; 100 feet W. of Broadwell St., 200 feet N. of 253d St. Use: Domestic. Casing: 6 inches.	300A	58	105	(4) (3) 1672	Dec. 1931 5/10/32 1/13/33	102	0.19	310 290 336	160 173 12	1	75
B-133o N 9	City of Los Angeles, Lomitas Well 2. W. of Wilmington; 0.56 mile W. from Frigate Ave. along L St., extended, thence 0.12 mile S., thence 0.14 mile SW., 50 feet SE. of large building, near north edge of Bixby Slough. Use: Municipal. Casing: 16 inches.	311B	20	509	(4)	2/26/32	—	—	60	—	—	18
B-134-N-9	Robert Tracy, Wilmington; 100 feet W. of Bayview Ave., 150 feet S. of Q St. Use: Domestic. Casing: 5 inches.	320	38	x110	(4) 1673	6/23/31 11/12/31 1/13/33	43.1 74.0	0.09	209 223 250	32 34 114	— — 0	— — 14r.
B-134h N 9	City of Los Angeles, Wilmington Pumping Plant 1. Wilmington; 240 feet S. of Grant St., 30 feet N. of J St., 100 feet E. of Fairbank Ave., 210 feet S. of Well 5. Use: Municipal.	341E	25	600	172	7/23/31	74.5	—	271	101	Tr.	0
B-135-N-9	Consolidated Lumber Co., Wilmington; 500 feet W. of Badger Ave., 300 feet S. of Anaheim St., 12 feet E. of boiler house in Consolidated Lumber Co. yard. Use: Not used. Casing: 12 inches. Gravel 145°, 150°; 162-169°; 172-179°. Samples on 9/29/31 were from depths of 150, 175 and 200 feet, respectively.	351A	12	*3320	(4)	Oct. 1929 12/12/30 6/23/31	—	—	248 203 164	64 71 110	— — —	— — —
B-135a-N-9	Owner unknown, Wilmington; 100 feet S. of Grant St., 150 feet E. of Badger St. Use: Abandoned, filled in. Casing: Drilled well.	351	21	x	(4)	Oct. 1929	—	—	248 203 164	64 71 110	— — —	— — —
B-135c N 10	Long Beach Salt Co. W. of Long Beach; 2,000 feet S. of Anaheim St., 3,200 feet E. of Badger Ave., 75 feet NE. of U.P.R.R. tracks on W. side of Long Beach Salt Co. building. Use: Industrial. Casing: 4 inches.	362	5	x116	(4) (3) (4)	Oct. 1929 12/12/30 6/12/31	—	—	281 281 281	1,250 1,314 1,324	— — —	— — —
B-135e-N-10	Mexican tenants, W. of Long Beach; 0.13 mile S. of Anaheim St., 50 feet W. of dirt road to Long Beach Salt Co. plant (which is 0.67 mile W. of Santa Fe Ave.), between two Mexican cabanas. Use: Domestic. Casing: 2 inches. L. A. D. of W. & P. No. 3-B-17.	371	13	101	(4) (3) (4)	Oct. 1929 10/28/30 12/12/30	—	—	281 291 291	1,328 1,328 1,328	— — —	— — —
B-135g-O-10	Southern California Edison Co. Ltd. W. of Long Beach on Terminal Island; 200 feet N. of U.P.R.R., 500 feet W. of Long Beach Harbor entrance. Between boiler and generator units. Use: Industrial. Casing: 14 inches.	373A	10	250	1805	2/15/33	1,025	0.76	351	3,106	—	331

TABLE 14. WELLS IN REDONDO-LONG BEACH AREA - Continued

TABLE 14. WELLS IN REDONDO-LONG BEACH AREA Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)								
							Specific electrical conductivity ($K \times 10^4$) at 25°C	Boron ppm	Boron ppm $\times 100$ $\frac{\text{Na} + \text{Mg}}{\text{Ca} + \text{Na}}$	Boron ppm $\times 100$ $\frac{\text{Na} + \text{Mg}}{\text{Ca} + \text{Na}}$	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca^{2+})	Magnesium (Mg^{2+})	Sodium (Na^+)
(*)-913c-N 11	Peoples Inv Co, Long Beach; 100 feet N. of Anaheim St., 100 feet W. of head of Freeman Ave. in 32-foot pit near south entrance of engine room. Use: Industrial, but not for freezing. Casing: 5 inches.	441	38	x130	(d) (e)	Oct. 1929 12/9/30	515 11/11/31	187 187	0.24 0.24	47 47	305 308	53 54	0 Tr.	116 117	50 50
							846 967 1021 1131 1255 1355 1455 1520 1663 1733 1828	187 187 192 190 174 173 187 174 181 174 196 186	0.17 0.17 0.21 0.21 0.15 0.15 0.17 0.20 0.22 0.21 0.34 0.23	293 183 146 113 113 110 113 119 210 113	442 458 464 464 513 474 504 499 511 518	432 444 442 458 513 504 511 518	394 366 308 308 305 308 308 308 308 308 308 308	208 179 308 308 305 308 308 308 308 308 308 308	205 205 205 205 205 205 205 205 205 205 205 205

* Log in files of Division of Water Resources.

x Water levels in files of Division of Water Resources.

t Includes total equivalent quantity of Carbonate (CO_3^{2-}).b Sulfate (SO_4^{2-}) determined by turbidity method.

c Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

d Analysis by Standard Oil Co. of California.

e Analysis by City of Los Angeles, Department of Water and Power Laboratory; Carl Wilson, Director.

f Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.

g Analysis by Smith-Emery Co., Los Angeles.

h Analysis by Arthur R. Maus Laboratories, Los Angeles.

i Analysis by City of Long Beach, Engineering Laboratory.

j Analysis by Orange County Flood Control District, Santa Ana, California.

k Analysis by United States Department of Agriculture, Ruhindoux Laboratory, Riverside, California.

TABLE 15. SURFACE WATERS IN REDONDO-LONG BEACH AREA

Well number	Location and description	Location number	Elevation of ground	Discharge in second-feet	Laboratory number	Date	Constituents (parts per million)									
							Specific electrical conductivity ($K \times 10^{-4}$ at 25°C)	Boron ppm	Per cent sodium $\frac{Na \times 100}{Ca + Mg + Na}$	Chloride radicle (Cl)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
S897 M-10	Los Angeles River, NW. of Long Beach. Sampled just below 23rd St. (Wilmington St.), opposite Oil Operators, Inc. Surface flow and industrial waste.	S897	21		854	3/24/32	3,742	31.0	88	723	14,289	16	0	504	265	8,163
S390-N-10	Los Angeles River, W. of Long Beach, at the state Bridge. Surface flow.	S390	8		(a)	10/26/32			61	312	332	291	...	94	46	v289
S824 M-9	Nigger Slough, SE. of Gardena. Sampled at Main St. (Harbor Blvd.) crossing. Surface drainage.	S824	11		872	4/11/32	482	3.45	75	314	1,314	264	0	103	89	879
S835 M-9	Nigger Slough, SE. of Gardena. Sampled at Aviation Blvd. Bridge. Nearly all industrial waste.	S835	10	-	875	4/11/32	771	4.24	90	512	1,576	1,112	0	83	40	11,764
S846 M-9	Nigger Slough, NW. of Long Beach. Sampled at bridge 385, 0.25 mile N. of Carson St., 0.34 mile E. of Aviation Blvd.	S846	15	.....	(a)	3/12/32	.....	.....	88	0	1,440	623	.....	77	31	1,085
S860-N-10	Nigger Slough, NW. of Long Beach. Sampled 150 feet N. of Alameda St. Bridge, which is 300 feet N. of Willow St.	S869	10	.....	(d)	2/27/32	-	.....	68	123	201	209	.....	46	19	189
S1353-J-7	Pan California Oil Co., Robert Bromberg, Receiver, Inglenwood; 165 feet S. of Requet St., 453 feet W. of Prairie St. Oil well waste water.	S1353	150	.....	1295	8/30/32	5,330	51.2	.....	8554	19,347	.....	.....	.....	.....	.....

^a Includes small equivalent quantity of Carbonate (CO_3^{2-}).^b Sodium 1,120 ppm. Potassium 6.44 ppm.^c Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.^d Analysis by City of Long Beach, Engineering Laboratory.

TABLE 16. WELLS IN SAN BERNARDINO AREA

Well number	Location and description	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)									
						Specific electric conductance at 25°C.	Boron ppm	Per cent sodium Na x 100 (Ca + Mg + Na)	Bicarbonate radicle (HCO ₃)	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
D-1173b-E-25	Glen Helen Ranch, Well 2, NW of San Bernardino; 600 feet S.E. of Cajon Road, 0.65 mile SW. of Old County Road, SW. of dairy house. Use: Irrigation, artesian. Casing: 12 inches.	2,017	380	1309	9/ 2/32	46.1	0.04	22	182	11	52	2	39	22	
D-1182c-F-26	Fontana Union Water Co., F. U. Well 13. NW. of San Bernardino; 1.0 mile NE. of Riverside Ave., from point 0.38 mile SE. of Linden Ave. Use: Irrigation and domestic. Casing: 20 inches. Gravel 165-415.	1,550	*x551	620 1321	1/ 5/32 9/ 2/32	22.5 22.7	0.02 0.12	21 21	122 122	4 5	10 10	2 2	28 28	7 7	
D-1184h-F-26	Muscoy Mutual Water Co., Well 1, NW. of San Bernardino; 0.24 mile N. of Ogden St., 0.35 mile W. of Gray St. Use: Domestic and irrigation. Casing: 20 inches. Perforated 69-302.	1,493	*x351	1324	9/ 2/32	47.3	0.12	14	235	7	30	1	64	15	
D-1185a-F-26	Lytle Creek Water and Improvement Co., Upper Group New Well 4. NW. of San Bernardino; 2,000 feet NE. of Riverside Ave., from point 5,000 feet NW. of head, 900 feet N. of Highland Ave., 30 feet SE. of Upper Group Old Well 4. Use: Irrigation. Casing: 20 inches. Perforated 600-630.	1,475	*x047	1322	9/ 2/32	30.1	0.05	17	166	2	16	1	44	8	
D-1185a-F-26	Lytle Creek Water and Improvement Co., Lower Group Well 2. NW. of San Bernardino; 3,000 feet NE. of Riverside Ave., from point 1,900 feet N. of head, 900 feet N. of Highland Ave., 30 feet SE. of Upper Group Old Well 4. Use: Irrigation. Casing: 20 inches. Perforated 104-196, 206-234-264-300, 306-390.	1,410	*x410	1323	9/ 2/32	29.3	0.07	16	168	2	17	1	43	7	
D-1191d-F-26	Citizens Land and Water Co., Lord Well 6, NW. of San Bernardino; 1,850 feet S. of Highland Ave., 2,500 feet E. of Euclid Ave. Use: Formerly irrigation, abandoned in 1925. Casing: 12 inches. Gravel 20-250, 425-448.	1,265	*x500	(d)	Nov. 1918	-----	-----	-----	-----	-----	-----	-----	-----	15	
D-1191f-F-26	Citizens Land and Water Co., Lord Well 1, NW. of San Bernardino; 2,650 feet N. of Base Line Ave., 2,600 feet E. of Eucalyptus Ave.; Lord Well 2 is 150 feet W. and 20 feet N. Use: Irrigation and domestic. Casing: 20 inches. Perforated 218-250, 297-301; 318-324, 331-358; 330-438; 450-468; 478-508.	1,260	*x629	(e) 618	4/ 15/31 12/ 19/31	28.5	0.02	15	180 165	5	140 12	1	40	7	
D-1192-F-26	Citizens Land and Water Co., Old Ferguson Well 1, NW. of San Bernardino; 2,000 feet N. of Highland Ave., 200 feet E. of Symaree St., extended. Use: Formerly irrigation, not used. Casing: 20 inches. Gravel 120-488.	1,378	*x495	(d)	Nov. 1918	-----	-----	-----	-----	-----	-----	-----	-----	17	
D-1250-C-24	Mr. Lester, SW. of Cosy Dell; 450 feet E. and 320 feet N. of W. 1/4 corner, Sec. 12, T. 2 N., R. 6W., S. H. B. & M. NW. of Lost Lake, near Koenbrook. Use: Domestic. Well is very near San Andreas fault.	2,778	42	(e)	10/ 19/32	78.8	0.11	11	372	12	133	7	107	36	
D-1260-B-24	Atchison, Topeka and Santa Fe Railway Co., Cajon, 50 feet S. of A. T. & S. F. Ry. 100 feet E. of Cajon Creek, 1,375 feet N. of water tanks at Cajon Station. Use: Boiler feed and domestic—treated for boiler use. Casing: 15½ inches.	2,960	74	1304	9/ 2/32	71.0	0.05	27	360	12	64	4	78	26	
E-1-E-27	City of San Bernardino, Devil Canyon Well 4. NW. of San Bernardino; 4,250 feet NE. of Belmont Ave., along Pine Ave., extended, 950 feet S. of Pine Ave., produced, 50 feet N. offence at mouth of Devil Canyon, 150 feet NW. of Devil Canyon Well 3. Use: Municipal. Casing: 8-foot casings.	1,891	x50	1308	9/ 1/32	59.3	0.02	10	308	9	57	1	84	22	
E-4-b-F-27	W. L. Wiggins, NW. of San Bernardino; 100 feet E. of California Ave., 400 feet S. of Darby St. Use: Irrigation and domestic. Casing: 12 inches.	1,296	x325	617	12/ 19/31	41.9	0.03	13	232	6	25	2	59	15	
E-5c-F-27	Mt. Vernon Water Co., W. of San Bernardino; 75 feet S. of Highland Ave., 0.13 mile W. of California Ave., E. well of two 150 feet apart. Use: Irrigation, 20 inches. Perforated 235-308; 371-382-422; 462-502.	1,259	*x598	1325	9/ 2/32	45.6	0.05	14	238	7	36	1	62	14	
E-6h-G-27	Citizens Land and Water Co., Baynor Well. W. of San Bernardino; 600 feet S. of Base Line Ave., 0.9 mile E. of Pepper Ave., near center of Lytle Creek Wash. Use: Abandoned.	1,8767	-----	600	(d)	Nov. 1918	-----	-----	14	a176	6	17	3	42	8
E-7d-G-27	Citizens Land and Water Co., New Raynor Well 4. W. of San Bernardino; 400 feet S. of 9th St., 1,300 feet E. of Terrace St., 12 feet N. of Old Raynor Well 4. Use: Irrigation.	1,160	-----	1326	9/ 2/32	44.9	0.07	10	235	11	35	2	68	12	

TABLE 16. WELLS IN SAN BERNARDINO AREA. Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)								
							Specific electrical conductance ($K \times 10^{-3}$ at 25°C)	Boron ppm	Per cent sodium ($\text{Na} + \text{Mg} + \text{Na}$)	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca^{2+})	Magnesium (Mg^{2+})	Sodium (Na^+)
E-10-E-27	City of San Bernardino, Newmark Well, N. of San Bernardino; 300 feet N. of A St., 0.49 mile W. of Third Ave. Use: Municipal and irrigation. Casing: 24 inches.	18782	1,413	x410	614	12/17/31 9/1/32	34.8 35.6	0.08	Tr. 11	204 204	6 9	12 12	51 51	11 10	
E-15a-G-27	Terrace Water Co., W. of San Bernardino; 2,720 feet W. of Mt. Vernon Ave., 220 feet N. of Rialto Ave. Use: Irrigation. Casing: 16 inches.	18779	-	x446	(4) 1411	Aug. 1919 9/21/32	- 41.3	0.02	Tr. 9	180 217	8 5	45 31	0 2	49 61	10 12
E-15b-G-27	Barnhill Mutual Water Co., W. of San Bernardino; 2,242 feet W. of and 275 feet S. of NE corner of Lot 29, Block 25, San Bernardino Ranch. Use: Abandoned in 1922. Casing: 12 inches.	18779A	-	180	(4)	Aug. 1919	-	-	Tr. 104	6	45	0	22	6	
E-23-G-27	Southern California Ice Co., Well 1, San Bernardino; 160 feet W. of 1 St., 250 feet N. of 3d St., 97 feet W. of engine house well. Use: Ice plant and domestic. Casing: 16 inches. Perforated 130-162; 180-185; 250-260; 320-376.	18799	1,069	*x384	(4) 1319	Aug. 1927 9/1/32	46.2	0.05	Tr. 43	250 15	7 15	90 247	- 9	48 13	e60 18
E-24-G-28	Mrs. A. L. Hurtt, N. of San Bernardino; 0.9 mile N. of Willow Nook Road, 20 feet W. of Arrowhead Drive, 240 feet N. of 53d St. Inside of rock house. Use: Domestic and irrigation.	18812	1,483	x71	(4) (5) (6)	Feb. 1919 6/13/31 7/1/31	37.2	0.13	Tr. 15	128 28	24 192	71 11	17 19	24 46	34 6
E-29-G-28	City of San Bernardino, Hanford Well 1, San Bernardino; 60 miles N. of Rialta Ave., 0.16 mile E. of E St., 20 feet S. of 2d St., 140 feet E. of D St., 15 feet S. of pump house in yard of Water Department. Use: Municipal. Casing: 16 inches.	18809	1,028	x736	(4) 14/15/31	-	-	-	Tr. 192	7	7	27	-	-	e36 48
E-34a-E-28	T. J. S. Clapp, NE of San Bernardino; 600 feet N. of 40th St. (Willow Nook Road). 0.51 mile E. of Valencia Ave. Use: Irrigation. Casing: 16 inches. Perforated 240-294.	18833A	-	*x294	1313	9/1/32	55.5	0.56	Tr. 64	146	23	91	1	27	8
E-36a-F-28	City of San Bernardino, Perris Hill Well 3, San Bernardino; 200 feet S. of Highland Ave., 1,300 feet E. of Waterman Ave. Use: Municipal. Casing: 20 inches. Perforated 102-148; 156-202.	18826A	1,165	*x265	1311	9/1/32	39.1	0.20	Tr. 37	137	12	56	10	35	9
E-38-G-28	City of Riverside, Benson Tracy, Well F, E. of San Bernardino; 1,810 feet E. of Waterman Ave., 1,010 feet N. of 6th St. Use: Municipal. Casing: 16 inches.	18828	1,048	x520	(4) 1/23/31	35.4	0.01	1	Tr. 198	4	10	-	-	50	12
E-39-G-28	City of Riverside, Well D, E. of San Bernardino; 1,400 feet E. of Waterman Ave., 50 feet S. of 6th St., on E. bank of Warm Creek. Use: Municipal. Casing: 10 inches.	18829	1,040	x546	(4) 1/18/31	37.3	0.02	Tr. 14	180 183	4	11	-	-	52	13
E-39a-G-28	City of Riverside, Well C, E. of San Bernardino; 1,675 feet N. of 3d St., 1,360 feet E. of Waterman Ave., on E. edge of Warm Creek. Use: Municipal. Casing: 10 inches.	18829A	-	557	(4) 1/23/31 4/18/31	35.6	0.02	Tr. 14	180 183	4	11	-	-	43	8
E-39b-G-28	City of Riverside, Well E, E. of San Bernardino; 2,160 feet E. of Waterman Ave., 1,910 feet N. of 3d St., 750 feet E. of Warm Creek. Use: Municipal. Casing: 10 inches.	18829B	-	550	(4) 1/23/31 4/18/31	34.5	0.01	Tr. 17	177 193	2	12	-	-	45	5
E-39c-G-28	City of Riverside, Fraizer Well, San Bernardino; 300 feet N. of 3d St., 930 feet E. of Waterman Ave. Use: Municipal. Casing: 10 inches.	18829C	-	625	(4) 1/23/31 4/18/31	36.1	0.03	Tr. 4	186 193	4	10	-	-	46	11
E-39d-G-28	City of Riverside, Well A, E. of San Bernardino; 300 feet N. of 3d St., 200 feet E. of Waterman Ave., 75 feet S. of Warm Creek. Use: Municipal—artesian flow. Casing: 10 inches.	18829D	1,026	x913	(4) 1/23/31 4/18/31	37.5	0.09	Tr. 44	122 100	20	39	-	-	29	6
E-39e-G-28	City of Riverside, Well B, E. of San Bernardino; 250 feet N. of 3d St., 1,110 feet E. of Waterman Ave., 270 feet SE. of Warm Creek and 220 feet NE. of City Creek. Use: Municipal. Artesian flow. Casing: 10 inches.	18829E	1,034	x933	(4) 1/23/31	33.2	0.03	Tr. 42	125	12	28	-	-	28	4
E-42a-G-28	City of San Bernardino, Ant Basin Well 5, E. of San Bernardino; 900 feet N. of E. 6th St., 0.3 mile W. of Stiles St. Use: Municipal. Casing: 16 inches.	18833A	-	x1,410	(4) 12/17/31 1314	36.2	0.05	Tr. 58	125 125	16	44	-	-	25	4
									Tr. 1	125 20	125 20	125 20	56 57	25 25	46 47

TABLE 16. WELLS IN SAN BERNARDINO AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance ($K \times 10^{-4}$ at 25°C)	Percent sodium Na $\times 100$ Ca + Mg / Na	Constituents (parts per million)						
									Boron ppm	Boronate radicle (HCO ₃)	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
E-42b-G-28	City of San Bernardino, Ant Basin Well 1, E. of San Bernardino; 330 feet N. of E. 6th St., 0.45 mile W. of Stiles St., Use: Municipal—artesian. Casting: 12 inches. Gravel 170–190; 206–224; 232–260–290; 420–428; 436–614.	18838H	.....	*614	(^a)	4/15/31 615 1315	12/17/31 34.8 35.5	0.01 0.26	19 24	16 18	48 45	.....	9 9	17 21	
E-43-G-28	Waterman Ranch, E. of San Bernardino; 0.30 mile W. of Tuppernue St., 50 feet S. of Caduff St., Use: Irrigation. Casing: 10 inches. Perforated 574–976; 1002–1147.	18839	1,051	*x1147	1413	9/21/32	34.1	0.03	47	137	18	27	1	29	4
E-43b-G-28	Mr. Davis, E. of San Bernardino; 300 feet W. of Stiles St. (Tippecane St.), 20 feet N. of 3d St., 20 feet S. of City Creek. Use: Irrigation. Casing: 10 inches.	18839B	1,063	x	.....	(^c)	4/9/31 1410	9/21/32 28.0	Tr. 0.06	40 39	134 134	4 5	22 20	1	28 27
E-44-F-28	H. F. Bushman, NE. of San Bernardino; 400 feet N. of Olive St., 400 feet W. of Mountain Ave. Use: Irrigation. Casing: 12 inches.	18843B	1,550	.....	.....	231	1316	9/ 1/32	56.4	0.66	54	143	21	102	11
E-44g-E-28	Lady Margaret Sharp, NE. of San Bernardino; 1,600 feet N. of 40th St. (Willow Nook Road), 600 feet W. of Mountain Ave., extended, S. of swimming pool. Use: Irrigation and domestic. Casing: 4' x 4' x 4' dug well.	18842	1,550	.....	.....	1425	9/22/32	37.0	0.42	58	125	14	42	1	23
E-45b-F-28	George M. Cooley, NE. of San Bernardino; 10 feet W. of Del Rosa Ave. at turn to east, 0.25 miles S. of Highland Ave. Use: Irrigation. Perfected 75–85.	18846B	1,150	x124	(^c)	2/28/33	50.6	0.31	39	131	27	98	27	44	14
E-46-F-28	A. Osborn, E. of San Bernardino; 200 feet N. of Base Line Ave., 0.1 mile E. of Del Rosa Ave. Use: Irrigation and domestic. Casing: 3 inches.	18857D	1,098	x165	.....	1317	9/ 1/32	45.3	0.26	61	156	18	41	27	24
E-46L-F-28	A. Osburn, E. of San Bernardino; 500 feet N. of Base Line Ave., 1,000 feet W. of Sterling St., Use: Irrigation. Casting: 12 inches. Gravel 360–408; 424–432; 460–478; 488–508; 520–628.	18857F	-	.....	*628	1318	9/ 1/32	63.4	0.37	22	116	36	150	1	81
E-46n-F-29	J. Dolinner, E. of San Bernardino; 100 feet N. of Base Line Ave., 400 feet E. of Sterling St. Use: Domestic and irrigation. Casting: 12 inches.	18857G	1,105	470	(^c)	10/20/32	62.6	0.71	.....	.....	.....	.....	.....	.....	34
E-48-G-28	M. C. Freitas, E. of San Bernardino; 100 feet S. of 3d St., 0.43 mile W. of Sterling St., Use: Domestic. Casing: 6 inches in 20-foot pit. Open bottom casing.	18849	1,092	50	1412	9/21/32	29.8	0.04	22	134	5	13	11	32	9
E-49-F-29	West Highlands Water Co., E. of San Bernardino; 20 feet S. of Highland Ave., 0.09 mile W. of Victoria St. In corrugated iron pump house. Use: Irrigation. Casing: 18 inches. Gravel 180–224.	18876	1,287	*x224	(^d)	Oct. 1918	.....	24	128	10	15	13	27	10	16
E-49a-F-29	East Highland Orange Co., NE. of San Bernardino; 495 feet N. of Pacific St., 40 feet W. of Orange St. Use: Domestic. Casing: 7 inches.	18866	.....	.....	(^e)	10/29/26	.....	39	232	16	25	.....	43	9	
E-49d-F-29	Patton State Hospital, W. of Highland; 150 feet S. of Highland Ave., 0.16 mile W. of Central Ave. Use: Irrigation and domestic. Casing: 18 inches. Perfected 130–326.	18876A	1,285	*x351	1428	9/23/32	40.9	0.08	44	177	16	53	13	32	10
E-50c-F-29	East Highland Orange Co., E. of San Bernardino; 600 feet S. of Pacific St., 40 feet W. of Orange St., extended south, 20 feet E. of new well drilled March, 1931. Use: Formerly irrigation; abandoned February, 1931. Casing: 12 inches. Gravel 120–160; 220–250; 304–729.	18867	1,148	*x752	(^e)	10/29/26	.....	39	146	32	136	.....	61	9	
E-50h-F-29	Harlem Springs Resort, E. of San Bernardino; 50 feet E. of Victoria St., 0.12 mile N. of Base Line Ave. Use: Domestic. Casing: 7 inches. Open bottom casing, no perforations.	18877D	1,144	238	(^c)	4/22/32	27.3	0.02	74	122	5	17	11	10	2
E-50m-F-29	Base Line Laundry, E. of San Bernardino; 900 feet N. of Base Line Ave., 0.58 mile E. of Sterling St., Use: Laundry.	18867G	1,125	.....	(^c)	4/ 4/31	38.4	0.25	78	116	16	55	.....	11	3
E-51a-G-28	A. Gregory, E. of San Bernardino; 0.10 mile N. of 6th St., 0.35 mile E. of Sterling St., Use: Irrigation. Casing: 14 inches. Perfected 153–165; 361–379; 391–411; 465–494; 498–504.	18868	1,092	*523	1427	9/23/32	22.5	0.08	28	110	5	7	6	27	1
E-53-F-29	J. D. Boley, NW. of Highland; 0.32 mile N. of Highland Ave., 800 feet W. of Victoria St., Use: Irrigation. Casing: 16 inches. Perfected 240–425; 478–498.	18875	1,398	*615	(^c)	12/15/31	39.6	0.13	44	144	18	55	5	30	10
															41

TABLE 16. WELLS IN SAN BERNARDINO AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^4$ at 25°C)	Boron ppm	Percent sodium $\frac{Na \times 100}{Ca + Mg}$	Constituents (parts per million)				
										Bicarbonate radicle (HCO_3^-)	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	
E-54-F-29	Corwin Well Co., Highland, 20 feet S. of Atlantic Ave., 0.27 mile W. of Boulder Ave., Use: Irrigation. Casing: 20 inches. Perforated 306-348; 352-471.	18896	1,410	*x513	1423	Aug. 1930 9/22/32	34.0	0.23	71	157	14	6	3	5.8
E-54c-F-29	Thompson Brothers and Bear Valley Water Co., Barnes Well, NW. of Highland; 40 feet N. of Highland Ave., 0.12 mile W. of Palm Ave., Use: Irrigation. Casing: 20 inches. Perforated 244-254; 266-420; 471-490.	18886A	1,376	*515	(e) (e)	4/29/31 8/4/31	40.6 42.9	0.18 0.16	61 68	149 165	14 20	32 60	23 3	e55 e71
E-55a-F-30	American States Water Service Co., City Creek Highland Plant 1, Well 2, NE. of Highland; 26 miles E. of City Creek Road, 300 feet N. of Highland Ave., Use: Domestic.	18906A	1,498	308	(e)	4/25/30	59.9	1.03	86	122	20	83	9	2
E-55b-F-29	Highland Well Co., NE. of Highland; 115 feet N. of Highland Ave., 690 feet E. of City Creek. Use: Irrigation.	18906	1,473	72	(d)	Oct. 1918	-----	-----	24	122	10	21	2	e15
E-55c-F-29	American States Water Service Co., City Creek Highland Plant 1, Well 1, NE. of Highland; 60 feet N. of Highland Ave., 0.25 mile E. of City Creek Road, W. of reservoir. Use: Domestic and irrigation.	18906C	1,492	-----	-----	-----	1422	9/22/32	48.1	0.46	51	162	16	10
E-55d-G-30	Base Line Well Co., SE. of Highland; 50 feet N. of Base Line Ave. between branches of City Creek, 0.13 mile E. of Boulder Ave., Use: Irrigation. Perforated 36-68; 150-175.	18907A	-----	-----	*352	1419	9/22/32	28.3	0.08	30	122	7	32	5.8
E-56a-F-30	J. D. Langford, East Highland; 400 feet N. of 3d St., 600 feet E. of Orange St. Use: Irrigation. Casing: 18 inches. Perforated 175-292.	18918A	1,265	*305	1418	9/22/32	26.1	0.05	27	113	7	9	9	21
E-56b-G-30	Mr. Seely, E. of Highland; 50 feet W. of Church St., 1,300 feet N. of Base Line Ave., Use: Domestic and irrigation. Drilled to replace shallow well 20 feet away.	18927	1,355	506	(e)	8/5/31	29.2	0.05	50	143	7	21	10	23
E-61e-G-30	East Highlands Domestic Water Co., Edward Well, East Highlands; 550 feet S. of Santa Ana Canyon Road, 25 feet W. of University St., 150 feet N. of Sycamore Drive. Use: Domestic.	18935	-----	-----	(d)	Oct. 1918 9/22/32	23.8	0.06	14	92	10	5	0	e6 e16
E-62a-G-30	Dr. E. W. Burke, et al., E. of East Highland; 0.25 mile N. of Santa Ana Canyon Road, 1 mile E. of Weaver St., 0.2 mile S. mouth of Plume Creek. Use: Irrigation. Casing: 24 inches. Perforated 250-368; 326-348.	18935	-----	-----	*x375	1421	9/22/32	25.3	0.08	30	119	7	14	2
E-63b-G-31	East Highlands Orange Co. and W. V. Ranney, NE. of Redlands; 4,000 feet W. of intersection of Greenspot Road, 1,400 feet S. of Santa Ana Canyon Road. Use: Irrigation. Casing: 24 inches. Perforated 262-340; 344-458.	18969	-----	-----	*460	1414	9/22/32	23.2	0.04	29	110	4	14	3
E-64b-G-31	North Fork Water Co., New Well, NE. of Redlands; 100 feet N. of Santa Ana Canyon Road, 150 feet W. of Greenspot Road, 0.5 mile W. of mouth of Santa Ana Canyon. S. one of two wells. Use: Irrigation. Casing: 24 inches. Perforated 65-162; 165-267.	18980A	1,810	*x267	1415	9/22/32	36.1	0.06	30	152	5	38	4	38
E-65-G-31	Western Fruit Co., NE. of Mentone; 0.22 mile E. from intersection of Greenspot Road and Newport Ave., thence 1.05 mile N. and thence 0.2 mile NW. Well is in canyon, 400 feet NE. of this point. Use: Irrigation. Casing: 20 inches. Perforated 24-130; 130-260.	19009	2,060	*357	1417	9/22/32	54.4	0.08	21	232	16	63	2	5.8
E-75-G-27	City of Colton, Highline Well 8, N. of Colton; 175 feet S. of Rialto Ave., 0.52 mile W. of Mt. Vernon Ave., Use: Municipal. Casing: 14 inches.	17970C	-----	-----	x640	(f)	4/16/31	-----	-----	208	8	b35	-----	e33
E-85c-G-27	City of Colton, New Well 12, San Bernardino; 350 feet N. of Mill St., 50 feet E. of Mt. Vernon Ave., Use: Municipal. Casing: 10 inches. Perforated 538-608.	17980	1,063	*x04	(e) (f)	3/29/31 4/16/31	37.2	0.01	34	207 218	5 8	b40	-----	43
E-89b-G-27	De Siena Mission Hot Springs, Hot Well. San Bernardino; 310 feet S. and 20 feet W. of center line of private road extending southward to Colton Ave. from junction of K St. and Hillcrest Ave. Use: Swimming baths. Casing: 12 inches. Perforated 304-318; 376-386; 470-485; 502-520; 522-544.	17991	1,035	*547	(e)	4/24/30	59.9	1.65	82	220	99	5	21	1

TABLE 16. WELLS IN SAN BERNARDINO AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 ⁻⁴ at 25°C)	Boron ppm	Constituents (parts per million)							
									Percent sodium	Na x 100 Ca + Mg + Na	Bicarbonate radicle (HCO ₃)	Chloride radicle (Cl)	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)	Magnesium (Mg)	Sodium (Na)
E-89c-G-27	De Siena Mission Hot Springs, Cold Well, San Bernardino; 370 feet S. and 29 feet W. of private road extending southerly to Colton Ave. from junction of K St. and Hillcrest Ave. Use: Domestic. Artesian well. Bubbles rise through water.	17991A	1,035	200	(e)	4/ 3/31	35.9	0.02	43	214	7	25	.....	40	5	e42
E-93d-G-28	Meeks and Daly Water Co., S. of San Bernardino; 0.7 mile S. of Mill St., 100 feet W. of E. St. Use: Irrigation. Casing: 20 inches. Perforated 24-34-52-672. Sample on 8/13/31 is composite above 450 feet, on 8/27/31 above 490 feet (new gravel at 480 feet), on 9/2/31 above 524 feet, on 9/11/31 above 562 feet (new 12-foot gravel stratum), on 9/16/31 above 540 feet, on 10/28/31 is composite 5 days after starting pump, and on 12/15/31 and 1/11/32 pump discharge after 5 and 7 second feet, respectively.	18001B	980	*603	(e)	8/13/31 9/2/31 9/11/31 9/16/31 10/28/31 12/15/31 1/11/32	41.9 40.8 37.3 40.7 33.0 40.4 40.6	0.07 0.21 0.20 0.12 0.15 0.37 0.44	16 26 58 28 51 31 41	238 210 174 207 171 189 176	7 7 16 9 4 16 21	Tr. Tr. Tr. Tr. Tr. Tr. Tr.	57 48 24 22 30 24 36	12 3 8 1 10 7 7	17 52 26 39 29 38 38	
E-93j-G-27	Urbita Hot Springs, S. of San Bernardino; 0.45 mile SW. of intersection of Colton Ave. and E St., 600 feet SE. of Colton Ave. Use: Flowing well discharging into Lake. Casing: 4 inches. Gravel 98-15-18-250; 276-302.	18001D	1,000	*368	(e)	4/ 4/30	41.7	0.05	26	256	5	14	.....	54	9	e28
E-93p-G-28	Gregory and Lancford, S. of San Bernardino; 50 feet W. of Arrowhead Ave.; 0.7 mile S. of Mill St. Use: Irrigation and domestic. Casing: 10 inches.	18001F	.....	.....	(e)	9/2/31 9/16/31	45.2 45.7	1.03 1.01	72 69	171 168	46 44	22 20	0 0	22 22	2	e76 e71
E-94a-H-27	City of San Bernardino, S. of San Bernardino; 850 feet W. of E. St., 2,400 feet N. of Colton Ave. Use: General, at sewage disposal plant. Perforated above plug at 150 feet.	18002	972	300	(e)	6/13/31	51.9	0.62	62	140	69	33	Tr.	32	3	e71
E-94b-H-28	City of Riverside, Paine Well, S. of San Bernardino; 590 feet S. of Dumas Drive, 360 feet W. of Waterman Ave. Use: Scott's laundry without additional heating.	18012	1,007	.....	(d)	Mar. 1930	.....	.....	67	105	78	27	.....	12	11	e71
E-94c-H-28	City of Riverside, Byrne Tract Well, S. of San Bernardino; 50 feet S. of Dumas Drive, extended 267.5 feet W. of Waterman Ave. Use: Municipal. Casing: 20 inches. Perforated 645-657; 673-681-778-789; 851-873; 879-885; 907-943; 975-1044; 1013-1035; 1063-1074; 1091-1125.	18012A	945	*1,162	(e)	1/17/31 4/18/31	48.8 47.4 46.8	1.52 1.66 1.48	65 88 87	95 73 98	75 73 73	26 26 18	.....	8 7 8	63 85 84	
E-94d-H-28	Riverside Water Co., New Thorn Tract Well, S. of San Bernardino; 1700 feet S. of Dumas Drive, 1750 feet W. of Waterman Ave. Use: Irrigation. Casing: 20 inches. Perforated 64-108; 150-180; 182-192; 210-214; 226-236. Sample on 6/7/31 bailed from 98-foot depth, while drilling, on 6/10/31 coarse gravel at 150-160 with slight flow, and on 6/13/31 coarse gravel at 220-236 with slight flow. Gravel again encountered at 334-340 but casing was not cut.	18012B	997	*350	(e)	6/7/31 6/13/31	41.7 43.0 34.3	0.01 0.02 0.14	67 32 43	171 201 149	11 11 14	42 40 21	4 2	46 48 31	8 8 4	e24 32 33
E-94d-II-28	Mrs. M. L. Hunt, Well 3, E. of Colton; 245 feet E. of Hunt Ave., 900 feet S. of Colton Ave. One of four flowing wells around small reservoir. Use: Irrigation. Casing: 10 inches. Gravel 90-108; 116-130.	18013B	990	*400	(d)	3/30/26	.....	.....	42	207	36	53	.....	42	13	e53
E-94h-H-28	City of Riverside, Hunt Tract Well 6, E. of Colton; 90 feet W. of Waterman Ave., 90 feet S. of Colton Ave. Use: Municipal. Casing: 8 inches.	18013C	1,015	538	(e)	1/30/31 4/18/31	40.9	0.40	69	137 144	34 34	32 32	.....	17	4	e61
E-94i-H-28	City of Riverside, Hunt Tract Well 8, E. of Colton; 28 feet W. of Waterman Ave., 43 feet S. of Colton Ave. Use: Municipal. Casing: 10 inches.	18013D	1,015	544	(e)	1/30/31 4/18/31	39.5	0.31	67	140 144	28 31	33 30	.....	20	3	e59
E-94j-H-28	City of Riverside, Hunt Tract Well 9, E. of Colton; 11 feet W. of Waterman Ave., 11 feet S. of Colton Ave. Use: Municipal. Casing: 10 inches.	18013E	1,015	574	(e)	1/30/31 4/18/31	37.3	0.31	71	131 134	30 34	31 34	.....	16	3	e59
E-94r-H-28	Oehl Packing Co., S. of Sao Bernardino; 250 feet W. of E. St., 65.50 feet N. of Colton Ave. Use: Domestic and packing house.	18002A	975	180	(e)	4/ 9/31	50.4	0.11	48	201	30	38	.....	39	8	e55
E-95b-H-28	City of Riverside, Stewart Tract Well 19, E. of Colton; 365 feet N. of S. P. R. R., 0.25 mile S. of Colton Ave., 70 feet W. of Waterman Ave. Use: Municipal. Casing: 20 inches. Perforated 115-131; 205-223; 406-440; 525-539; 675-760.	18014A	1,018	450	(e)	1/30/31 4/18/31	58.4	0.15	42	238 223	30 39	45 48	.....	48	11	55
E-95c-H-28	City of Riverside, Stewart Tract Well 21, E. of Colton; 360 feet N. of S. P. R. R., 0.25 mile S. of Colton Ave., 130 feet W. of Waterman Ave. Use: Municipal. Casing: 20 inches. Perforated 115-131; 205-223; 406-440; 525-539; 675-760.	18014B	1,018	*815	(e)	1/30/31	45.4	0.17	61	155	32	40	.....	22	7	e60

TABLE 16. WELLS IN SAN BERNARDINO AREA—Continued

TABLE 16. WELLS IN SAN BERNARDINO AREA. Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance ($K \times 10^4$ at $25^\circ C$)	Constituents (parts per million)								
								Boron ppm	Percent sodium Na $\times 100$ $\frac{Ca + Mg}{Ca + Na}$	Bicarbonate radicle (HCO_3^-)	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca^{2+})	Magnesium (Mg^{2+})	Sodium (Na^+)
E-49p-G-28	Gage Canal Co., Well 29-2, N. of Loma Linda; 0.06 miles N. of San Bernardino Ave., 0.63 mile W. of Tippecanoe Ave., on N. side of Gage Canal. Use: Irrigation. Casing: 24 inches. Perforated 122-269.	18032A	1,040	*325	1217	8/ 6/32	54.3	0.01	17	183	23	85	9	73	15	23
E-49s-H-28	Gage Canal Co., Well 29-1, N. of Loma Linda; 0.27 mile N. of Colton Ave., 0.38 mile W. of Tippecanoe St. Use: Irrigation. Casing: 24 inches. Perforated 84-116; 119-137; 145-233; 255-279.	18033D	1,040	*303	1371	9/12/32	71.5	0.07	35	327	32	50	12	64	22	62
E-49y-H-28	Mrs. A. Law, E. of Colton, 0.9 mile S. of Central Ave., 400 feet E. of Waterman Ave. Use: Irrigation. Casing: 12 inches. Gravel 135-200; 504-527; 604-730.	18022I	999	*730	(e)	4/20/31	31.4	0.10	42	155	9	21	30	4	c31	
E-49z-H-28	Gage Canal Co., Well P, SE. of San Bernardino; 1700 feet N. of Colton Ave., 0.65 mile E. of Waterman Ave. Use: Irrigation. Perforated 340-405; 577-590; 609-640.	18033I	1,040	*640	(e)	6/13/31	51.5	0.09	37	226	25	41	15	52	11	c47
E-49b-G-28	Gage Canal Co., Well 30-1, N. of Loma Linda; 500 feet S. of Central St., 900 feet E. of Tippecanoe Ave. Use: Irrigation. Casing: 24 inches. Gravel 74-174; 200-236; 248-300; 314-345; 350-400; 478-490; 496-538; 600-618; 636-644; 672-676; 682-700; 758-772; 766-808; 820-832; 838-874; 907-911.	18041I	1,055	*937	1374	1/15/31 9/12/32	32.6	0.02	41	146 119	7 2	23 9	2	29	5	e29
E-49c-G-28	Gage Canal Co., Well 31-1, SE. of San Bernardino; 750 feet E. of Tippecanoe Ave., 450 feet S. of Central St. Use: Irrigation. Casing: 24-328; 328-340; 378-384; 392-402.	18041A	1,055	*422	1375	9/14/32	35.0	0.15	53	155	11	27	1	26	5	45
E-101c-G-28	W. Henry Van Leeven, E. of Loma Linda; 20 feet W. of Mountain View Ave., 150 feet S. of intersection of Mountain View Ave. and Mission Road. Use: Irrigation.	18054	1,120	-----	(e)	4/ 4/30	79.1	0.04	39	366	43	58	-----	60	26	c75
E-103-H-28	College of Medical Evangelists, Kelley Well, Loma Linda; 1250 feet E. of Anderson St., 200 feet N. of Van Leeven St. Use: Domestic. Perforated 180-194; 198-208; 610-640; 696-734.	18044A	1,090	*754	1218	8/ 4/32	69.6	0.05	48	302	45	49	2	53	15	83
E-107L-H-29	Allen Break and C. A. Puffer Well, Bryn Mawr; 1900 feet E. of Mountain View Ave., 1200 feet N. of Barton Ave. Use: Irrigation. Casing: 14 inches. Gravel-packed well.	18064B	1,150	425	1220	8/ 5/32	85.5	0.09	41	336	57	78	22	65	27	56
E-109i-G-29	Lanford De Hart, De Hart Well, NW. of Redlands; 30 feet N. of Palmetto Ave., 50 feet W. of Alabama Ave. Use: Irrigation. Casing: 18 inches. Perforated 79-209.	18091F	1,220	*220	1224	8/ 5/32	41.3	0.03	15	183	9	29	22	56	11	14
E-110d-G-29	H. C. Ervin, Fairview Well, NW. of Redlands; 265 feet N. of San Bernardino Ave., 624 feet W. of Alabama Ave. Use: Irrigation.	18082	1,215	300	(d)	May, 1919	-----	-----	21	177	12	22	2	48	7	c18
E-110e-H-29	Mascot Water Co., NW. of Redlands; 640 feet E. of Alabama St., 670 feet N. of Lukonia Ave. Use: Irrigation.	18092	1,240	400	(d)	Oct., 1918	-----	-----	11	191	11	35	0	55	10	c10
E-110t-H-29	Lough Nickerson, W. of Redlands; 75 feet S. of A. T. & S. F. Ry. loop track; 50 feet W. of Nevada St., 30 feet S. of old well E-110a-H-29. Use: Irrigation. Casing: 20 inches. Perforated 294-298; 313-333; 366-454.	18083B	1,188	*467	1222	8/ 5/32	44.2	0.01	20	177	27	25	9	56	11	21
E-114f-H-29	City of Redlands, Texas St., Plant 1, Well 30. Redlands; 220 feet N. of Lukonia Ave., 180 feet W. of Texas St., 8 feet of three. Use: Municipal. Casing: 18 inches. Gravel 90-120; 129-257.	18102A	1,313	*x237	1226	8/ 4/32	44.6	0.04	17	186	11	32	22	58	11	17
E-114i-H-29	City of Redlands, Well 41. Redlands; 150 feet W. of Texas St., 50 feet S. of S. P. R. R. Use: Municipal. Casing: 20 inches. Perforated 150-442.	18104A	1,300	*474	1227	8/ 4/32	45.6	0.13	26	168	28	38	9	52	11	29
E-119-G-30	North Brae Water Co., N. of Redlands; 350 feet N. of San Bernardino Ave., 50 feet W. of Churrit St. Use: Irrigation. Casing: 20 inches. Perforated 184-336.	18122	1,390	*400	1228	8/ 6/32	38.4	0.01	13	177	7	27	16	54	10	12
E-123f-H-31	East Lagonia Water Co., Well 5. Mentone; 100 feet E. of Berry Ave., 300 feet N. of Lukonia (Mentone) Ave. Use: Domestic, and irrigation. Casing: 26 inches. Perforated 116-183.	18172B	1,690	*x318	1232	8/ 4/32	36.6	0.01	12	174	9	30	11	56	13	12

TABLE 16. WELLS IN SAN BERNARDINO AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electric conductivity ($K \times 10^3$ at 25°C)	Boron ppm	Constituents (parts per million)							
									Per cent sodium	Bicarbonate ($\text{Na} \times 100$)	Bicarbonate radicle ($\text{Ca} + \text{Mg}$)	Nitrate radicle (Na_3O_4)	Sulfate radicle (SO_4)			
E-127g-H-31	Claus T. Payne, Well 2, S. of Mentone; 0.23 mile S. of Colton Ave., 300 feet W. of King St. Use: Irrigation. Perfected 120' 15"; 157' 17"; 182' 21"; 218' 228'.	18173	1,710	*250	1233	8/ 5/32	40.2	0.02	19	198	13	23	11	46	17	20
E-127f-H-31	McIntosh Estate, E. of Mentone; 1000 feet N. of Lugonia (Mentone) Ave., extended on line of Greenspot Road. Use: Irrigation and domestic.	18192A	2,017	-----	1234	8/ 4/32	40.4	0.03	*10	210	7	27	7	57	15	10
E-131f-G-31	Greenspot Mutual Well Co., NE. of Mentone; 2100 feet N. of Newport Ave.; 150 feet W. of Peppers Road (private road). Use: Irrigation. Casing: 16 inches. Perfected 90'-147'.	18201	2,100	*160	1236	8/ 4/32	34.2	0.03	12	162	11	21	7	47	11	11
E-134g-G-31	Western Fruit Co., NE. of Mentone; 0.8 mile N. of Newport St. 400 feet W. of Peppers Road (private road). Use: Irrigation. Casing: 18 inches. Perfected 60'-129'-152'.	18200	2,100	*630	1235	8/ 4/32	36.0	0.03	18	177	9	30	2	45	12	17
E-134-G-32	East Highland Orange Co., Sunrise Ranch Well 2, N. of Yucaipa; N. 16° E. from Southern California Edison power plant near Rainbow Angling Club on Mill Creek, N. 64° W. from intersection of 2d Ave. and Mill Creek Road. Use: Irrigation. Casing: 20 inches. Gravel 200'-233'; 329'-445'; 583'-593'; 845'-1012'. N. 45° E. from power house near Rainbow Angling Club on Mill Creek, N. 64° W. from intersection of 2d Ave. and Mill Creek Road. Use: Irrigation. Casing: 20 inches.	18231	1,012	1239	8/ 4/32	32.2	0.01	15	165	4	21	0	42	11	12	
E-134a-G-32	East Highland Orange Co., Sunrise Ranch Well 1, N. of Yucaipa; N. 45° E. from power house near Rainbow Angling Club on Mill Creek, N. 64° W. from intersection of 2d Ave. and Mill Creek Road. Use: Irrigation. Casing: 20 inches.	18231A	2,580	*922	1240	8/ 4/32	33.5	0.07	15	165	2	32	1	42	11	12

* Log in files of Division of Water Resources.

† Water levels in files of Division of Water Resources.

‡ Includes small equivalent quantity of Carbonate (CO_3^{2-}).§ Sulphate (SO_4^{2-}) determined by turbidity method.

|| Alkalinity based on difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

¶ Analysis by University of California Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.

** Analysis by United States Department of Agriculture, Rutherford Laboratory, Rutherford, California.

†† Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.

‡‡ Analysis by Edward S. Babcock and Sons, Riverside, California.

TABLE 17. WELLS IN CHINO AREA

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)						
							Boron ppm	Percent sodium Na x 100 Na + Mg Ca + Na	Boronate radicle (HCO ₃)	Chloride radicle (Cl)	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)	
C-582b-G-18	Base Line Water Co., Puddingstone Well 2, SW. of La Verne; 600 feet S. of Walnut Ave.; Use: Irrigation. Casing: 20 inches. Perforated 120-234. U.S.D.A. analysis on 10/22/31 is duplicate of D. W. R. Lab. No. 478.	3210A	985	*x275	478 (4)	10/22/31	45.8 45.9	0.22 0.23	58 61	180 183	14 18	29 29	8 5
C-586-G-18	Bonita Water Co., La Verne; 80 feet S. of 6th St., 270 feet W. of D. St.; Use: Irrigation. Casing: 22 inches. Gravel processed well.	4439E	1,059	*x613	442	10/16/31	50.5	0.08	35	217	25	43	4
C-611-G-19	San Dimas Water Co., Yorba Well 1, S. of La Verne; 15 feet S. of La Verne Ave. (offset E. of Lincoln Ave. Use: Irrigation. Casing: 18 inches. Perforated 73-77; 109-131; 249-272; 363-377, 363-373.	3230	1,043	*x393	477	10/22/31	30.4	0.03	24	159	7	15	6
C-622a-G-19	La Verne Water Co., La Verne Heights; 250 feet N. 13°W. from intersection of Base Line Ave. and Live Oak Canyon Road. Use: Irrigation. Casing: 18 inches. Perforated 248-277; 365-401; 418-432; 455-465; 490-496; 506-510.	4458E	1,285	*x530	443	10/16/31	36.9	0.47	48	143	12	30	13
C-649e-G-19	City of Pomona, Well 3, Pomona; 750 feet S. of La Verne Ave. 400 feet E. of Garey Ave. Use: Municipal. Casing: 14 inches. Perforated 116-142; 168-176; 312-316; 444-450; 480-492; 506-522; 540-602.	3241E	990	*x676	(c)	5/18/31	-	-	-	157	9	b20	-
C-656j-F-20	A. G. McKenna, N. of Claremont; 0.16 mile N. of Base Line Ave., 40 feet W. of Bonnie Brae Ave. Use: Irrigation. Casing: 20 inches. Gravel 709-730.	4487G	1,466	*767	444	10/16/31	32.6	0.08	22	174	2	24	2
C-663n-G-10	H. H. Garner, Claremont; 55 feet S. of 10th St., 190 feet W. of Yale Ave. Use: Irrigation. Casing: 15 inches.	4489	1,228	*x550	445	10/16/31	32.5	0.01	10	183	2	17	2
C-665-G-20	Del Monte Irrigation Co., Well 226, Claremont; 110 feet E. of College Ave.; 56 feet S. of A. T. & S. F. Ry. East well of two. Use: Irrigation. Casing: 16 inches. Perforated 170-435; U. S. D. A. analysis on 10/22/31 is duplicate of D. W. R. Lab. No. 475.	3280J	1,150	*x450	475 (4)	10/22/31	26.9	0.06	54	143	5	15	2
C-667j-G-19	City of Pomona, Well 1, Pomona; 580 feet N. of Aliso St., 250 feet W. of P. E. Ry., E. of Garey Ave. Use: Municipal. Casing: 16 inches. Perforated 40-750.	3241H	960	*x831	(c)	5/18/31	-	-	-	105	8	b15	-
C-667k-G-19	City of Pomona, Well 7, Pomona; 700 feet N. of La Verne Ave., 900 feet S. of Towne Ave. Use: Municipal. Casing: 14 inches. Gravel 23-233-298-307-364-383; 462-466; 482-513; 504-570; 551-624; 634-650; 670-682; 687-710.	3261C	980	*x734	(c)	5/18/31	-	-	-	146	12	b35	-
C-667k-G-19	City of Pomona, Well 8, Pomona; 1300 feet N. of La Verne Ave., 900 feet S. of Towne Ave. Use: Municipal. Gravel 107-222; 293-320; 329-355; 382-420; 431-477; 523-525; 546-603; 623-634; 74-786; 742-807; 815-827.	3251E	1,017	*900	(c)	5/18/31	-	-	-	151	7	b34	-
C-670s-G-19	Pomona Irrigation Co., Pomona; 120 feet NE. of Willow St., 325 feet NW. of Orange Grove Ave. Use: Irrigation. Casing: 16 inches. Perforated 520-530; 575-594; 600-620. U. S. D. A. analysis on 10/22/31 is duplicate of D. W. R. Lab. No. 476.	3252F	952	*690	476 (4)	10/22/31	26.4	0.06	88	137	4	19	4
C-673-H-19	East End Irrigation Co., Pomona; 25 feet S. of First St., 80 feet W. of East End Ave. Use: Irrigation.	3274	900	x455	473	10/22/31	38.4	0.02	12	177	9	18	22
D-701a-F-20	City of Upland, Well 1, NW. of Upland; 0.24 mile W. of Mountain Ave., 30 feet S. of 26th St. Use: Municipal. Casing: 24 inches. Perforated 230-460.	4524A	2,160	*192	567	12/ 1/31	37.2	0.17	10	207	4	24	2
D-705g-F-20	City of Upland, Well 5, NW. of Upland; 0.13 mile N. of 21st St., 0.13 mile E. of Mountain Ave. Use: Municipal. Casing: 24 inches. Perforated 230-460.	4535B	1,855	*x491	568	12/ 1/31	34.5	0.17	13	183	4	18	6
D-707-F-21	San Antonio Water Co., Well 15, Paul Well. N. of Upland; 50 feet S. of 23rd St., 0.36 mile E. of Buell Ave. Use: Irrigation. Casing: 12 inches. Gravel 278-320-456; 508-523-557-584; 608-620; 750-771; 773-804; 815-822; 836-857; 884-891; 893-895; 897-902; 906-911; 920-936; 942-964.	4555	1,836	*x1,000	(4)	8/26/29 10/16/31	30.7	0.01	10 13	177 171	4	22 14	Tr. 4
D-711-F-20	Euclid Water Co., Well 1, W. of Upland; 130 feet W. of Benson Ave., 0.29 mile N. of Baseline Road. Use: Irrigation. Gravel 324-347; 581-590; 596-628; 633-653.	4517F	1,630	*x679	449	10/16/31	29.0	Tr.	55	146	4	28	1

TABLE 17. WELLS IN CHINO AREA—Continued

Well number	Location and description	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)					
						Boron ppm	Percent sodium Na x 100 (Na + Mg / Ca + Na)	Specific electrical conductance (K x 10 ⁻⁴ at 25°C)	Chloride radicle (Cl ⁻)	Sulphate radicle (SO ₄ ²⁻)	Nitrate radicle (NO ₃ ⁻)
D 71a F 20	Eaelid Water Co., Well 6, NW. of Upland; 0.38 mile W. of Benson Ave.; 0.38 mile N. of Baseline Ave. Use: Irrigation and domestic; 20 inches. Perforated 275-325; 475-520; 675-700.	4517D	1,650	*x762	450	10/16/31	33.3	0.03	186	5	—
D 71b G 21	City of Upland, Well 7, Upland; 0.10 mile W. of Camino Ave., 200 feet S. of 9th St. Use: Municipal. Casing: 24 inches. Perforated 443-880.	1,214	*x901	569	12/ 1/31	33.7	0.14	17	180	6	7
D 72c G 20	Limited Mutual Water Co., Well 1, W. of Ontario; 60 feet S. of 8th St., 1200 feet E. of Central Ave. Use: Irrigation and domestic. Casing: 16 inches.	1,182	x660	574	12/ 2/31	35.1	0.13	12	201	2	14
D 72d G 20	Limited Mutual Water Co., Well 3, W. of Upland; 100 feet S. of 8th St., 122 miles E. of Central Ave. Use: Irrigation and domestic. Casing: 20 inches. Perforated 334-339; 334-452; 402-474; 476-500; 510-508; 618-623; 652-659; 664.	1,158	*x664	573	12/ 2/31	33.3	0.12	—	180	0	—
D 72e H 21	City of Ontario, Well 2, E. of Ontario; 85 feet S. of 4th St., 300 feet E. of Coacanona Ave. Use: Municipal. Casing: 16 inches.	1,064	x600	(e)	4/ 17/31	—	—	—	—	199	10
D 72f H 21	City of Ontario, Well 4, E. of Ontario; 90 feet S. of 4th St., 300 feet E. of Grove Ave. Use: Municipal. Casing: 20 inches. Gravel 208-320; 322-337; 376-410; 434-447; 452-461.	1,056	*x600	(e)	4/ 17/31	34.2	0.15	17	183	10	125
D 73a H 20	Ranoma Mutual Irrigation Co., E. of Pomona; 30 feet S. of 5th St., 800 feet E. of Ranoma Ave. Use: Irrigation. Casing: 14 inches. Gravel 249-250; 312-363; 370-414-430. U.S. D.A. analysis on 10/22/31 is duplicate of D.W.R. Lab. No. 474.	3294A	*x441	474	10/22/31	34.8	0.03	10	186	7	17
D 73b H 21	City of Ontario, Well 5, Ontario; 350 feet W. of Euclid Ave., 600 feet S. of Desau Ave. Use: Municipal. Casing: 26 inches. Gravel 186-190; 201-236; 345-405; 411-415; 542-560; 642-652. Casing plugged at 507 feet.	17645	*x672	(e)	4/ 17/31	39.5	0.15	17	201	13	18
D 74a H 20	City of Chino, Well 3, N. of Chino; 445 feet W. of Central Ave., 400 feet S. of Phillips Blvd. Use: Municipal. Casing: 16 inches. Perforated 230-245; 275-300; 330-344; 370-382; 383-396; 414-418; 428-435; 443-450.	17605	881	*x453	(e)	5/ 18/31	—	—	—	190	9
D 74b H 20	City of Chino, Well 1, N. of Chino; 75 feet S. of Phillips Blvd., 200 feet W. of Central Ave. Use: Municipal. Casing: 16 inches. Gravel 140-150; 230-230; 274-300; 336-374.	17615A	890	*x402	(e)	5/ 18/31	33.6	0.16	11	189	9
D 74c H 20	City of Chino, Well 2, N. of Chino; 15 feet S. of Phillips Blvd., 610 feet W. of Central Ave. Use: Municipal. Casing: 16 inches. Perforated 228-256; 272-301; 322-328; 331-394.	17605C	885	*400	(e)	5/ 18/31	—	—	—	195	12
D 74d H 20	John Weiss, N. of Chino; 150 feet W. of Telephone Ave., 36 feet S. of Philadelphia Ave. (El Sy St.). Use: Domestic. Casing: 6 inches.	17606C	s06	x175	565	12/ 1/31	42.3	0.22	18	217	13
D 74e H 20	H.F. Brown et al., S. of Ontario; 600 feet S. of Walnut Ave., 800 feet E. of Euclid Ave. Use: Domestic and irrigation.	17657B	s11	300	579	12/ 2/31	39.4	0.02	17	210	11
D 75a I 19	B.B. Lahaw, W. of Chino; 125 feet S. of Riverside Ave., 35 feet W. of East End Ave. Use: Domestic and irrigation. Casing: 12 inches. Perforated 140-151; 200-208; 238-245; 266-270. U.S.D.A. analysis on 10/22/31 is duplicate of D.W.R. Lab. No. 472.	32781	738	*273	10/22/31	33.8	0.06	18	186	5	16
D 75a-1-20	W.M. Freeman, S. of Chino; 135 feet S. of Shafer Ave., 95 feet W. of 12th Ave. Use: Domestic. Casing: 7 inches.	17619A	696	x90	564	12/ 1/31	30.1	0.20	—	171	6
D 75b I 20	Gann and Orthis, Chico; 0.25 mile E. of Central Ave., 0.25 mile S. of Shafer Ave. Use: Domestic and irrigation. Casing: 12 inches. Perforated 147-159; 206-250.	17619D	681	*250	572	12/ 1/31	30.2	0.13	20	171	0
D 75d I 20	Southern California Edison Co., Ltd., Chino; 100 feet N. of Edison Ave.; 30 feet W. of Benson Ave. (15th St.). Use: Domestic and industrial. Perforated 100-104; 126-134.	16710A	670	*x202	1774	2/23/33	31.5	0.03	—	171	2
D 762 I 21	George Bird, E. of Chino; 90 feet S. of Shafer Ave., 0.36 mile E. of Euclid Ave. Use: Domestic.	17659	723	x	575	12/ 2/31	94.1	0.10	11	220	46

TABLE 17. WELLS IN CHINO AREA—Continued

Well number	Location and description	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)										
						Specific electrical conductivity ($K_x 10^6$ at $25^\circ C$)	Boron ppm	Percent sodium Na $\times 100$ $(\frac{Ca + Mg}{Ca + Na})$	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Magnesium (Mg)					
D-762a-J-21	Earl Thomas, SE of Chino; 150 feet S. of Edison Ave., 0.2 mile W. of Bon View Ave. Use: Irrigation and domestic. Casing: 14 inches. Gravel 44-60; 146-154; 193-199.	10750	695	*240	1779	2/23/33	38.7	0.04	20	198	9	46	13	19		
D-762b-J-21	F.A. Helsley, E. of Chino; 150 feet S. of Shafer Ave., 0.30 mile W. of Bon View Ave. Use: Domestic. Casing: 6 inches.	17659B	720	80	576	12/2/31	57.2	0.13	14	281	28	17	8	76	19	21
D-768a-J-19	Joe Valpreda, S. of Chino; 200 feet W. of Pine Line Ave., 140 feet N. of Chino Canyon Road (Merrill Ave.). Use: Domestic and irrigation. Casing: 10 inches.	1981A	658	x85	1773	2/23/33	84.1	0.28	44	327	71	53	13	60	24	88
D-771e-J-20	Gilbert Kremer, S. of Chino; 225 feet E. of Prado Road, 0.58 mile S. of intersection of Home Ranch Ave. and Prado Road. Use: Domestic and irrigation. Casing: 16 inches.	16713	584	x175	1775	2/23/33	32.8	0.04	24	174	4	20	0	38	11	21
D-772b-J-20	R. Robles and J. Yohiro, S. of Chino; 45 feet S. of Robles Ave., 45 feet W. of Manolia Ave., extended. Use: Irrigation and domestic.	16723A	580	154	1776	2/23/33	30.9	0.04	25	168	2	17	6	37	10	21
D-775-J-21	J.F. Catlett, SE of Chino; 0.50 mile E. of Euclid Ave., 270 feet N. of Pine Ave. Use: Domestic. Casing: 7 inches.	16754	570	x140	1780	2/23/33	30.2	0.04	47	149	4	12	7	25	6	36
D-780a-K-20	Sonia Meredith, S. of Chino; 0.25 miles S. of Pine Ave., 350 feet W. of Prado Road. Use: Irrigation and domestic. Casing: 12 inches.	16735C	540	64	1777	2/23/33	104	0.14	37	336	57	188	11	110	35	72
D-781c-K-21	L. Richenberger, S. of Chino; 65 feet E. of intersection of Prado Road and Pioneer Road. Use: Domestic and irrigation. Casing: 8 inches.	16746C	510	119	1778	2/23/33	71.7	0.08	26	265	28	114	5	78	22	46
D-782a-K-21	Owner unknown, W. of Norco; 350 feet N. of McCarty Ave., 4000 feet W. of Hellman Ave. Use: Domestic. Builey No. 374A.	16770A	505	-----	(0)	9/13/31	48	-----	54	198	18	43	-----	28	9	57
D-783a-K-21	Mike O'Neil, NW of Prado; 0.5 mile E. of Prado Road along road 0.5 mile S. of Pioneer School, 100 feet S. of road, 200 feet E. of Chino Creek. Use: Domestic. Casing: 7 inches. Builey No. 375A.	16767A	491	x-----	(0)	9/13/31	134	-----	47	502	36	175	87	39	c155	
D-784-L-21	I.V. Ashcroft, SE of Chino; 405 feet E. of Prado Road, 0.23 mile S. of Serrano Road. Use: Domestic and irrigation. Casing: 7 inches. Bailey No. 371A.	15850A	471	x45	(0)	11/24/31	118	-----	51	604	32	68	-----	71	29	c142
D-789d-L-21	United States Geological Survey, Test Well D, NW of Prado; 30 feet S. of Prado (Rincon) Road, 0.25 mile W. of the Santa Ana River, 0.25 mile E. of Chino Creek.	15860B	469	x-----	(0)	11/24/31	116	-----	51	604	28	68	-----	71	29	c142
D-801c-K-21	McCarthy Bros. W. of Norco; 0.4 mile S. of Chandler St., 100 feet W. of Hellman Ave. Use: Domestic. Casing: 6 inches.	16785B	566	x32	1782	2/23/33	58.2	0.08	33	265	32	30	3	58	16	48
D-802b-K-21	Chino Gun Club, W. of Norco; 300 feet S. of McCarty Ave., 3400 feet E. of Serrano Road, 700 feet W. of Chino Gun Club Road. Use: Domestic. Bailey No. 379B.	16777A	500	-----	(0)	9/23/31	63	-----	17	305	25	43	-----	79	19	25
D-802c-K-21	A.R. McCarthy, W. of Norco; 150 feet S. of McCarty Ave., 1100 feet W. of Hellman Ave. Use: Domestic.	16786	545	45	1783	2/23/33	78.5	0.08	26	412	28	24	18	93	23	52
D-802e-K-21	McCarthy Bros. W. of Norco; 0.47 mile W. of Hellman Ave., 300 feet S. of McCarty Ave. Use: Irrigation. Bailey No. 374C.	16787A	520	-----	(0)	10/5/31	76	-----	-----	-----	32	32	-----	-----	-----	-----
D-803a-K-21	United States Geological Survey, Test Well E-1, N. of Prado; 2400 feet E. of Serrano Road from turn, 2700 feet SE of Chino Gun Club Road, 600 feet SE of U.S.G.S. Well E-1. Use: U.S.G.S. Recorder Well. Casing: 4x4" dug well.	16779B	480	4	1381	9/15/32	68.4	0.26	-----	329	43	329	43	329	43	43
D-803b-K-21	United States Geological Survey, Test Well E-3, N. of Prado; 30 feet N. of edge of active channel of Santa Ana River, 500 feet downstream from intersection of Yorba St., extended. Use: U.S.G.S. Recorder Well. Casing: 4x4" dug well.	16779D	475	8	1383	9/15/32	184	0.48	-----	503	320	503	320	503	320	52

TABLE 17. WELLS IN CHINO AREA—Continued

Well number	Location and description	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)						
						Specific electrical conductivity ($K \times 10^{-3}$ at 25°C)	Boron ppm	Per cent sodium Na $\times 100$ ($\text{Ca} + \text{Mg} + \text{Na}$)	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca^{2+})
D-812-K-22	McCarthy Bros., Well 2, W. of Norco; 40 feet N. of McCarty Ave. (Chino-Corona Blvd.), 640 feet E. of Holloman Ave. Use: Irrigation. Casing: 16 inches. Baileys No. 373B.	16796	562	x310	(1)	9/22/31	38	.....	.....	18	.....	.....
D-813-K-22	J. T. Hammer, W. of Norco; 600 feet E. of Archibald Ave., 3900 feet S. of Chandler Ave., on east line of private drive. Use: Domestic. Casing: 7 inches. Baileys No. 372B.	16816	546	x	(6)	9/22/31	43	.....	17	214	18	16
D-804b-J-21	C. T. Merrill, SE of Chino; 30 feet W. of Walker Ave., 300 feet S. of Merrill Ave. Use: Irrigation and domestic. Casing: 14 inches.	16781	657	x207	(6)	10/5/31	50	.....	21	247	21	18
D-809a-J-22	John Imbach, NW of Norco; 180 feet W. of Archibald Ave., 10 feet S. of Cloverdale Road, extended. Use: Irrigation and domestic. Casing: 16 inches.	16802	643	x310	(6)	10/23/31	44	2	0.02	232	14	8
D-809d-J-22	John Imbach, NW. of Norco; 230 feet W. of Archibald Ave., 10 feet S. of Cloverdale Road, extended, 50 feet W. of Well D-909a-J-22. Use: Domestic.	16802A	642	310	1755	2/21/33	89	9	0.05	15	375	77
D-910-L-22	E. B. Covington, E. of Chino; 0.55 mile S. of Chino Ave., 0.2 mile W. of Archibald Ave. Use: Domestic. Casing: 16 inches. Gravel 1/4-1/6; 11s-130-266-270; 290-291; 310-342; 334-362; 378-394; 398-424.	17799A	720	*436	477	12/2/31	33	1	0.12	23	183	4
D-911f-L-22	George Burcola, E. of Chino; 120 feet S. of Chino Ave., 0.4 mile W. of Archibald Ave. Use: Domestic.	17698E	752	.....	580	12/2/31	54	0	0.17	15	195	39
D-918a-J-22	Bert Gratzinger, N. of Norco; 400 feet N. of Cyrus St., 0.15 mile W. of Summer Ave. Use: Irrigation and domestic. Casing: 12 inches.	16824B	600	x196	1757	2/21/33	69	8	0.02	23	314	45
D-921b-J-22	Wm. Poulsen, N. of Norco; 150 feet W. of Cleveland Ave., 2400 feet N. of Cloverdale Road. Use: Irrigation and domestic.	16831A	675	500	1759	2/21/33	19	8	0.02	42	94	6
D-925-L-23	A. T. Galloway (formerly Mrs. M. L. Johnson), SE of Ontario; 300 feet N. of Riverside Blvd., 1000 feet E. of Adams Ave. Use: Domestic.	1776A	798	175	508	11/13/31	38	2	0.04	27	180	23
D-927b-L-23	John Knauss, N. of Norco; 0.51 mile N. of Belle Grove Ave., 0.45 mile E. of Adams Ave. Use: Irrigation and domestic. Casing: 12 inches. Perforated 78-80; 156-238; 240-278; 280-336.	16850C	725	*300	1790	2/21/33	36	7	0.02	23	189	9
D-932-J-23	A. Luekeman, NE of Norco; 225 feet S. of Olive St. (River Blvd.) 0.45 mile E. of Wineville Ave. Use: Irrigation. Casing: 14 inches. Gravel 1s-25; 1s-1s2.	16863	607	*x202	1792	2/23/33	21	9	0.01	42	895	11
D-934-J-23	C. N. Marietta, NE of Norco; 600 feet E. of Wineville Ave., 130 feet N. of Belle Grove Ave. Use: Domestic. Casing: 7 inches.	16860	714	x104	1791	2/2/33	71	5	0.02	18	186	98
D-935a-L-23	H. H. Kuhlman and A. W. Church, E. of Chino; 300 feet W. of Etiwanda Ave., 0.28 mile N. of Belle Grove Ave. Use: Irrigation and domestic. Casing: 12 inches.	17779	762	x400	497	11/12/31	35	3	0.08	26	168	18
D-935b-L-23	Chas. E. Paulhaber, E. of Chino; 180 feet W. of Etiwanda Ave., 78 feet S. of County Line Road. Use: Irrigation and domestic. Casing: 20 inches. Gravel 150-162; 194-200; 206-210; 230-245; 285-370; 376-386; 405-420.	17778A	785	x149	502	11/12/31	41	1	0.03	.....	180	20
D-936-L-23	Chas. Stern and Sons, S. of Etiwanda; 180 feet W. of Etiwanda Ave., 78 feet S. of Riverside Ave. Use: Domestic. Casing: 7 inches.	17776	845	*x438	498	11/12/31	32	1	0.04	24	177	7
D-939-L-23	Santa Ana River Water Co., NE of Norco; 250 feet N. of Weller St., 270 feet E. of Martin Ave., 850 feet S. of Belle Grove Ave. Use: Irrigation and domestic. Casing: 16 inches.	16880A	727	x250	1793	2/27/33	43	0	0.01	24	174	32
D-940a-J-23	Santa Ana River Water Co., NE of Norco; 75 feet S. of Malachite St., 0.70 mile E. of Etiwanda Ave. Use: Irrigation and domestic. Casing: 10 inches.	16880C	689	x200	1794	2/23/33	56	2	0.06	30	159	60
D-952-J-24	Jurupa Heights Water Co., NE of Norco; Well 1, W. of Pedley; 50 feet S. of Linomite Ave., 0.61 mile W. of Garnet St. Use: Irrigation and domestic. Casing: 16 inches. Gravel 97-101; 101-113.	16912	690	*114	1795	2/21/33	57	9	0.21	43	134	77

TABLE I. WELLS IN CHINO AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^6$ at 25°C)	Boron ppm	Percent sodium $\frac{Na \times 100}{Ca + Mg}$	Constituents (parts per million)				
										Boronate radicle (HCO_3^-)	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Magnesium (Mg)	Sodium ($Na$)
D-952a J 24	Jurupa Heights Water Co., Well 2, N. of Pedley; 110 feet S. of Highway 50, 50 feet E. of U. P. R. R. Use: Irrigation and domestic.	16921	730	x120	1796	2/21/33	76.1	0.16	35	201	84	58	26	62
D-959 J-24	J. C. Core, NW. of Riverside; 300 feet E. of Agate St., 150 feet S. of Mission Blvd. Use: Domestic. Casing: 6 inches.	17828	796	x36	496	11/12/31	47.2	0.22	30	339	23	56	52	36
D-963a J 25	Mr. McIntosh, W. of Riverside; 400 feet SE. of Riverview Drive, 0.45 miles SW. of Lantana Ave.; 1200 feet N. of U. P. R. R. Use: Irrigation and domestic.	16662A	728	x-----	1798	2/27/33	67.7	0.11	21	354	16	47	2	84
D-968b J-25	City of Riverside, W. of Riverside; 0.53 mile SW. of Riverview Drive, 0.38 mile S. of Sever Farm Road, which is 1.5 miles SW. of Mission Blvd. Use: Domestic. Casing: 8 inches.	14972	735	46	1794	2/27/33	95.9	0.14	31	387	87	56	Tr.	102
D-971a J-25	A. H. Long, West Riverside; 150 feet N. of Mission Blvd., 100 feet W. of Opal Ave. Use: Domestic. Casing: 6 inches.	17878A	865	96	501	11/12/31	79.4	0.14	-----	326	48	-----	-----	-----
D-975c J-25	E. K. Smith, West Riverside; 200 feet SE. of A. St., 0.2 mile NE. of Wilson St., 1500 feet SW. of First St. Use: Domestic.	17899D	816	x70	495	11/12/31	87.2	0.19	33	357	59	82	9	81
D-975d J 25	W. S. Pitney, West Riverside; 0.25 mile SE. of Riverview Drive, 0.16 mile SW. of intersection of Riverview Drive and Mission Blvd. Use: Domestic. Casing: 5 x 5 dug well.	16580A	770	x23	1800	2/27/33	129	0.22	32	418	156	74	13	112
D-984k J 26	Riverside Cement Co., Mine Sump Drift, NW. of Riverside; 1500 feet E. of Cresmore Road (A. St.), 1200 feet NW. of Canal St. Use: Industrial. Floor 10 inches. Top of sump is elevation 633 feet. Owner believes water rises through limestone lenses from great depth.	17917D	900	267	924	4/28/32	62.2	0.02	23	174	89	27	7	73
D-1001b-G-21	Cucamonga Water Co., Well 6, E. of Upland; 0.11 mile S. of Base Line Ave., 185 feet W. of Cornelian St. Use: Irrigation. Casing: 12 inches.	4587J	1,420	x365	608	12/16/31	27.9	0.01	22	143	6	16	4	34
D-1002b-G-21	Arrow Route Water Co., E. of Ontario; 650 feet W. of Vineyard Ave.; 106 feet S. of Arrow Highway. Use: Irrigation, Casting: 16 inches. Perforated 38-42-49-51; 510-517; 530-536; 540-630; 631-670; 674-700; 722-728.	1,164	x745	563	12/1/31	35.1	0.19	189	6	-----	-----	-----	-----	-----
D-1007a-H 22	Ralph Weiler, SE. of Ontario; 140 feet E. of Vineyard Ave., 55 feet S. of Francis St. Use: Irrigation and domestic.	17685	866	x-----	578	12/2/31	36.3	0.12	18	183	11	13	7	44
D-1012a-G 22	Old Settlers Water Co., Well 1, S. of Alta Loma; 1330 feet S. of Base Line Ave., 650 feet W. of Archibald Ave., 20 feet S. 30 feet W. from NE. corner of Lot 7, Cucamonga Fruit Lands. Use: Irrigation. Casing: 15 inches.	18508	1,322	x448	(d)	8/5/31	36.8	Tr.	18	201	7	21	9	47
D-1016-H 22	Mr. Signorio, N. of Gnash; 675 feet S. of 4th St. (San Bernardino Ave.), 0.21 mile E. of Archibald Ave. Use: Irrigation and domestic. Casing: 16 inches. Gravel 234-254; 306-353; 372-401; 409-429.	17712	1,016	x507	500	11/12/31	37.3	0.02	19	207	9	7	9	49
D-1024-G-22	Mission Vineyard Co., NW. of Elwendale; 30 feet S. of Base Line Ave., 0.86 mile W. of Orange St., 0.94 mile E. of Haven Ave. Use: Irrigation. Casing: 20 inches. Gravel 522-525; 540-555; 547-750; 756-782; 780-783; 120-964.	18547A	1,331	x964	1430	9/23/32	35.8	0.01	13	186	4	11	1	55
D-1029-H 23	Nando Miglietta (formerly Mrs. M. S. Spardly), E. of Guest; 0.35 mile E. of Orange St., 8½ feet S. of S. P. R. R. Use: Domestic. Casing: 7 inches.	17763	974	x280	499	11/12/31	39.5	0.03	30	207	18	6	42	11
D-1042a-H 23	S. S. Swanson, S. of Elwendale; 0.4 mile N. of Marley Ave., 0.57 mile E. of Elwendale Ave. Use: Domestic. Casing: 10 inches.	17785A	910	x146	503	11/12/31	39.8	0.06	--	192	27	-----	-----	-----
D 1050 G-24	Fontana Union Water Co., F. U. Well 17, E. of Etwendale; 75 feet E. of Cherry Ave., 110 feet S. of A. T. & S. F. Ry., 500 feet N. of Merrill Ave. Use: Irrigation. Casing: 20 inches. Gravel 380-406; 410-438; 450-460; 466-474; 480-490; 498-632; 630-712.	17810	1,165	x845	505	11/13/31	35.5	0.08	19	192	9	5	6	50
D-1056 H 24	Fontana Union Water Co., F. U. Well 5, SW. of Fontana; 30 feet S. of Slover Ave., 50 feet W. of Ponchar Ave. Use: Irrigation. Casing: 16 inches. Gravel 251-276; 418-446; 520-540; 560-586.	17833	1,052	x854	506	11/13/31	33.8	0.01	21	174	9	12	6	49

TABLE 17. WELLS IN CHINO AREA - Continued

Well number	Location and description	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^{-3}$ at 25°C)	Per cent sodium	Boron ppm	Bicarbonate radicle ($\text{Ca} + \text{Mg} / \text{Na}$)	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca^{2+})	Magnesium (Mg^{2+})	Sodium (Na^+)	
D-1061-G-25	Fontana Union Water Co., F. U., Well 31, W. of Rialto; 40 feet S. of Base Line Ave.; 310 feet E. of citrus Ave. Use: Irrigation and domestic. Casing: 20 inches. Perforated: 630-661.	1,396	*x761	604	12/15/31	33.2	0.02	22	201	9	3	46	7	19		
D-1062-G-25	Fontana Union Water Co., F. U., Well 111, Fontana; 100 feet S. of A.T.&F.R. Ry.; 40 feet E. of Juniper Ave. Use: Domestic and irrigation. Casing: 20 inches. Perforated: 700-859.	1,247	*x872	599	11/13/31	31.4	0.06	180	5	-	-	-	-	-	-	
D-1064-H-25	Fontana Union Water Co., F. U., Well 15, S. of Fontana; 30 feet S. of San Bernardino Ave.; 103 miles W. of Magnolia Ave. Use: Irrigation. Casing: 20 inches. Gravel 318-332; 388-430; 444-464; 484-496; 500-546; 554-590; 596-630; 638-646; 650-680.	1,156	*x808	510	11/13/31	33.4	0.03	180	7	-	-	-	-	-	-	
D-1072a-G-25	Fontana Union Water Co., F. U., Well 23, W. of Rialto; 55 feet S. of Base Line Ave.; 634 feet W. of Alder Ave. Use: Irrigation and domestic. Gravel 260-304; 328-346; 364-398; 462-480, 510-543.	1,409	*x543	605	12/15/31	31.8	0.11	13	183	6	9	2	50	8	11	
D-1073-G-25	West Rialto Water Co., Well 1, W. of Rialto; 425 feet W. of Laurel Ave.; 716 feet S. of Base Line Ave.; 30 feet S. of Well 2. Use: Irrigation. Casing: 16 inches. Gravel 319-376; 465-468; 545-548; 635-637.	1,390	x536	1432	9/23/32	31.1	0.01	13	174	2	7	1	46	9	10	
D-1075-G-25	Fontana Union Water Co., F. U., Well 12, N. of Bloomington; 75 feet S. of Randall Ave.; 400 feet W. of Linden Ave. Use: Irrigation. Casing: 16 inches. Gravel 319-376; 465-468; 545-548; 635-637.	1,178	*x734	511	11/13/31	41.7	0.02	207	20	-	-	-	-	-	-	
D-1075a-G-25	Fontana Union Water Co., F. U., Well 28, E. of Fontana; 45 feet S. of Merrill Ave.; 265 feet W. of Lonest Ave. Use: Irrigation. Casing: 20 inches. Perforated 364-336; 390-398; 410-420; 472-490; U.S.D.A. analysis on 11.13.31 is duplicate of D.W.R. Lab. No. 507.	1,227	*x531	507 (*)	11/13/31	44.5 46.3	0.17 0.16	21 24	223 220	12 21	9 11	57	13	24	*26	
D-1079b-H-26	Crestmore Ranch, S. of Bloomington; 425 feet E. of Linden Ave.; 185 feet S. of Jurupa Ave. Use: Irrigation and domestic. American States Water Service Co., Well 1, NE of Bloomington; 700 feet N. of Randall Ave.; 40 feet E. of Larch Ave. Use: Irrigation. Casing: 16 inches. Perforated 228-230; 234-280; 290-307; 328-366; 416-500; 575-602.	1,785	997	-	-	504	11/13/31	44.3	0.03	18	195	25	19	9	63	10
D-1082-G-26	Lytic Creek Water and Improvement Co., Willow St. Well, Rialto; 1800 feet N. of Foothill Blvd.; 200 feet E. of Willow Ave. Use: Irrigation. Gravel 107-250; 252-256; 260-284; 294-296; 310-370; 380-382; 388-402; 414-436; 436-550; 618-632; 634-748; 782-787.	1,297	*828	1312	9/2/32	31.8	0.01	15	180	4	2	1	48	8	12	
D-1085-G-26	Jurupa Water Co., Plant 1, SW. of Colton; 2810 feet S. and 310 feet W. of the E. 1/4 corner, Sec. 25, T. 1 S., R. 4 W. & M. 150 feet N. of Aqua Mansa Road. Use: Irrigation. Casing: 12 inches.	1,7945B	900	300 (*)	Sept. 1918 S/ 5.29	-	-	5	18.5 1.83	9	18	6	45	19	*4	
D-1092a-H-26	Twin Buttes Water Co., Plant 6, SW. of Colton; 1310 feet S. and 800 feet W. of the E. 1/4 corner, Sec. 25, T. 1 S., R. 4 W. & M. 150 feet N. of Aqua Mansa Road. Use: Irrigation. Casing: 12 inches.	1,7944	\$75	*275 (*)	1/28/20 S/ 5.29	-	-	35 11	256 1.7	94 46	1	120 63	32 10	*106 *11		
D-1092b-H-26	Jurupa Water Co., Plant 1, SW. of Colton; 2460 feet S. and 20 feet W. of the center of Sec. 25, T. 1 S., R. 4 W. & M. 100 feet N. of Aqua Mansa Road. Use: Irrigation. Casing: 12 inches.	1,7945	900	150 (*)	Sept. 1918 Nov. 1918	-	-	38	185 1.83	9	17	7	32	10	*34	
D-1105a-F-21	San Antonio Water Co., Well 13, Rex Well, E. of Upland; 2460 feet S. and 70 feet N. of Orange St. Use: Irrigation. Casing: 16 inches.	4,586	1,648	x575 (*)	Nov. 1918	-	-	35	*100 Tr.	9	13	9	21	6	*19	
D-1106d-F-22	Upland Water Co., NE. of Upland; 1860 feet E. of Cornelius St.; 103 feet S. of 19th St. Use: Irrigation. Perforated 273-282; 297-306; 321-324; 329-345; 347-393; 396-418; 449-474; 491-604-686.	4,586D	1,542	*x702 (*)	10/16/31	38.9	Tr.	22	174	9	42	7	42	15	21	
D-1106h-F-21	San Antonio Water Co., Well 3, E. of Upland; 440 feet S. of Iris St.; 120 feet E. of Clemontone Ave.; 635 feet E. and 190 feet N. of SW. corner of Lot 383, Ontario Colony Lands. Use: Irrigation. Casing: 12 inches.	4,577C	1,490	*x928 (*)	Nov. 1918 8/26/29	-	-	16 16	*158 168	8 5	17 16	4	38 46	12 9	*13 *13	

TABLE 17. WELLS IN CHINO AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity (K $\times 10^{-3}$ at 25°C)	Constituents (parts per million)								
								Boron ppm	Boron Na $\times 100$ (Ca + Mg + Na)/Ca	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)		
D-1107-F-22	Cucamonga Water Co. Well 2, E. of Upland; 925 feet N. of Base Line Ave.; 500 feet E. of Vineyard Ave. Use: Irrigation and domestic. Gravel 174-212; 218-240; 240-255; 474-502; 509-538.	4597	1,465	*x538	609	12/16/31	42.5	0.01	30	177	9	61	4	45	13	33
D-1107m-F-22	Foothill Irrigation Co., Well 1, E. of Upland; 100 feet S. of Highland Ave.; 450 feet W. of Archibald Ave. Use: Irrigation. Casing: 16 inches. Perforated 224-750.	18506H	1,498	*x762	(*)	Oct., 1918	.....	.....	9	174	12	25	0	43	17	68
D-1107o-F-22	Citrus Water Co. Well 1, N. of Alta Loma; 120 feet S. of 19th St. Use: Irrigation and domestic. Casing: 32 inches.	18506B	1,492	x500	607	12/16/31	37.4	0.08	30	171	6	36	2	44	9	30
D-1108l-F-22	Foothill Irrigation Co., Well 5, N. of Alta Loma; 600 feet N. of Highland Ave.; 20 feet W. of Arroyo St. Use: Irrigation. Casing: 20 inches. Perforated 288-046; 666-740; 820-867; 900-909.	18506L	1,572	*1,410	487	11/9/31	39.9	0.06	30	183	5	42	4	42	12	31
D-1110a-F-22	Schowalter Mutual Water Co., Well 2, NL. of Alta Loma; 0.33 mile E. of Turner (Iherne) Ave.; 20 feet N. of Ananus St. Use: Irrigation and domestic. Casing: 20 inches. Perforated 265-452; 462-466; 515-533; 605-620; 623-642.	18514	1,890	*750	613	12/17/31	30.0	Tr.	15	180	6	11	1	43	10	13
D-1116b-F-22	Schowalter Mutual Water Co., Well 1, NE. of Alta Loma; 0.1 mile E. of Hernosa Ave. (Turner Ave.), 0.24 mile N. of Ananus St. Use: Irrigation and domestic. Casing: 16 inches. Gravel 350-375; 380-420; 420-452; 450-505; 464-588.	18514A	1,945	*618	612	12/17/31	30.1	0.02	15	174	7	13	1	42	10	13
D-1117-F-22	Foothill Irrigation Co., Well 2, E. of Upland; 100 feet S. of Lemon St.; 50 feet E. of Archibald Ave. Use: Irrigation and domestic.	18505	1,588	x500	(*)	Oct., 1918	.....	.....	48	156	12	13	0	4	8	14
D-1118-F-22	Foothill Irrigation Co., Well 3, E. of Upland; 20 feet E. of Archibald Ave.; 25 feet N. of 19th St. Use: Not used, formerly irrigation.	18506D	1,491	x500	(*)	Oct., 1918	.....	.....	25	168	9	17	30	38	9	20
D-1153-F-24	John Ellerleth, NW. of Fontana; 450 feet E. of San Seyerin Road (Live Oak Ave.), 0.45 mile N. of Highland Ave. Use: Domestic. Dug well.	18625	1,482	300	611	12/17/31	30.1	0.04	14	192	6	2	1	47	9	11
D-1156-F-24	T. S. N. Malof, NW. of Fontana; 0.26 mile N. of Highland Ave.; 0.49 mile E. of Lytle Creek Road; 40 feet N. of Hollywood Ave.; 30 feet W. of Boston Ave. Use: Domestic. Casing: 16 inches. Perforated 655-778; 702-819; 852-893.	18645	1,537	*x015	603	12/15/31	34.8	0.05	19	207	7	4	4	47	10	17
D-1161-E-25	Fontana Union Water Co., F. U. Well 27, Intake Well, NW. of feet SW. of Riverside Ave.; 1.82 miles NW. of Linden Ave. Use: Domestic. Casing: 20 inches. Perforated 80-120; 176-208; 212-224.	19459	2,244	x113	1305	9/2/32	29.2	0.02	12	156	2	20	1	41	12	10
D-1170b-F-25	W. B. Braetton, NE. of Fontana; 0.36 mile N. of Highland Ave., 50 feet W. of Linden Ave. Use: Irrigation. Casing: 16 inches. Perforated 440-465; 530-555; 608-623; 660-709; 720-730; 750-773.	18653	*x325	606	12/15/31	30.5	0.09	13	186	6	7	0	44	10	11	
D-1173a-F-25	Fontana Union Water Co., F. U. Well 25, or T & M. Well 3, NW. of San Bernardino; 0.18 mile SE. of Riverside Ave., from point 0.15 mile NW. of Fontana power house. Use: Irrigation and domestic. Casing: 20 inches. Gravel 205-718.	18695	1501	*x779	1431	9/23/32	31.0	0.06	13	171	4	10	1	42	10	10
D-1181g-F-26	Fontana Union Water Co., Plant L. S. of Colton; 750 feet S. of N. St. 350 feet W. of Mt. Vernon Ave.; 40 feet E. of Riverside Water Co. canal. Use: Irrigation. Casing: 20 inches. Perforated 43-70; 83-97; 131-146.	17984	1,566	*x407	1320	9/2/32	30.9	0.12	12	168	4	21	1	46	10	10
E-87-H-27	Riverside Water Co., Plant L. S. of Colton; 750 feet S. of East N. St. 350 feet W. of Mt. Vernon Ave.; 40 feet E. of Riverside Water Co. canal. Use: Irrigation. Casing: 20 inches. Perforated 43-70; 83-97; 131-146.	935	*189	(*)	8/1,30	.....	.....	.....	23	.....	.....	.....	.....	.....	.....	.....

TABLE 17. WELLS IN CHINO AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^6$ at 25°C)	Boron ppm	Constituents (parts per million)			
									Per cent sodium	Bicarbonate radicle (HCO_3^-)	Sulphate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)
E-87a H 27	Riverside Water Co., Plant 2, S. of Colton; 1350 feet S. of East N St., 800 feet W. of Mt. Vernon Ave., 20 feet E. of Riverside Water Co.'s wooden flume across Santa Ana River, 10 feet S. of north end of flume. Use: Irrigation. Casing: 20 inches. Perforated 100-248; 240-354.	17084A	925	*403	(*)	8/ 1/30			30	...	...	...

• Log in files of Division of Water Resources.

x Water levels in files of Division of Water Resources.

a Includes small equivalent quantity of carbonate (CO_3^{2-}).b Sulphate (SO_4^{2-}) determined by turbidity method.

c Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

d Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.

e Analysis by California State Department of Public Health, Bureau of Sanitary Engineering.

f Analysis by Claffey Junior College, Ontario, California.

g Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.

h Analysis by Edward S. Babcock and Sons, Riverside, California.

i Analysis by Edward S. Babcock and Sons, Riverside, California. Data from Case No. 22046 (Corona Foothill Lemon Co., a Corp., vs. G. E. Lullbridge, et al.) in the Superior Court of the State of California, in and for the County of Riverside.

TABLE 18. WELLS IN RIVERSIDE AREA

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^{-3}$ at 25°C)	Boron ppm	Per cent sodium $\frac{Na}{Ca+Mg} \times 100$	Constituents (parts per million)					
										Boronate radicle (HCO_3^-)	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca^{2+})	Magnesium (Mg^{2+})
E-681-1-26	Elliott Springs, NE of Riverside; 350 feet SE of Main St., 140 feet NE of Strong St. Use: Swimming pool supply.	17939C	375	(e)	6/ 6/30	51.0	0.70	90	107	96	54	-----	5	3	1116
E-69-1-26	Riverside Water Co., Spanish Town Well, NE, of Riverside; 135 feet N. of Chase Road, extended, 130 feet W. of Orange St. At edge of Santa Ana River bottom. Use: Irrigation.	1794s	835	x--	(d)	Feb., 1920	-	28	220	18	43	3	53	12	132
E-69a-1-26	City of Riverside, Russell Well, NE, of Riverside; 270 feet NW of Orange St., off feet N. of Pacifica Lane. Use: Municipal. Casing: 20 inches. Perforated 17'-32'.	1794A	840	*x353	(e)	8/13/31	34.4	Tr.	36	207	6	17	3	39	7
E-74-1-27	Joe Trujillo, NE of Riverside; 0.25 mile NE of Chase Road, 0.13 mile SW of La Cadena Ave.; 75 feet N. of Riverside Water Co. Canal. Use: Domestic. Casing: 6 inches.	1795SD	882	x80	1211	7/28/32	53.8	0.12	27	235	27	43	6	61	15
E-74d-1-27	Riverside Water Co., Highgrove pump, NE of Riverside; 500 feet S. of Villa St., 100 feet W. of Iowa Ave., 35 feet N. of Riverside Water Co. Canal. Use: Irrigation. Casing: 20 inches. Perforated 40'-64'; 104'-134'; 150'-190'; 225'-240'; 324'-334'; 370'-380'. Riverside Water Co., Palmvalley Well, NE of Riverside; 85 feet SE of La Cadena Drive, 375 feet NE of Oxford St., 38 feet NW of Riverside Water Co. Canal. Use: Irrigation. Gravel, 38'-42'; 60'-72'; 80'-83'; 88'-123'; 128'-130'; 147'-160'; 150'-200'; 233'-245'; 330'-355'.	1795S	890	*402	(d)	Mar., 1929	-	-----	340	60	-----	25	-----	-----	-----
E-74e-H-27	La Sierra Water Co., Well 6, S. of Colton; 730 feet S. of the intersection of S. 3d St. and La Cadena Drive, 310 feet E. of La Cadena Drive. Use: Irrigation. Casing: 16 inches. Gravel 0-200'. La Sierra Water Co., Well 2, S. of Colton; 600 feet S. of the intersection of S. 3d St. and La Cadena Drive, 250 feet E. of La Cadena Drive. Use: Irrigation. Casing: 16 inches. Perforated 50'-191'.	17965A	899	*194	(d)	Sept., 1918	-	-----	19	225	20	36	5	65	13
E-76b-H-27	La Sierra Water Co., Well 6, S. of Colton; 730 feet S. of the intersection of S. 3d St. and La Cadena Drive, 310 feet E. of La Cadena Drive. Use: Irrigation. Casing: 16 inches. Gravel 0-150'.	17965B	900	*200	(d)	2/25/20	-	-----	46	284	156	85	3	100	10
E-76d-H-27	La Sierra Water Co., Well 5, S. of Colton; 770 feet S. from intersection of S. 3d St. and La Cadena Drive, 45 feet W. of La Cadena Drive. Use: Irrigation. Perforated 40-230'. Temescal Water Co., Palm Ave. Plant, S. of Colton; 142 feet S. of Palm Ave. Use: Irrigation. Casing: 16 inches. Perforated 127'-237'; 247'-351'.	17965D	900	*191	(d)	1/28/20	60.8	0.07	25	244	246	80	1	126	35
E-76e-H-27	La Sierra Water Co., Well 3, S. of Colton; 1570 feet S. from intersection of S. 3d St. and La Cadena Drive, 45 feet W. of La Cadena Drive. Use: Irrigation. Perforated 40-230'.	17965E	904	*x241	(d)	Sept., 1918	-----	-----	32	267	26	50	5	65	13
E-77-1-27	Temescal Water Co., Palm Ave. Plant, S. of Colton; 142 feet S. of Palm Ave. Use: Irrigation. Casing: 16 inches. Perforated 127'-237'; 247'-351'.	17966	956	*x372	(d)	Aug., 1928	-	-----	16	229	32	38	52	24	120
E-77b-1-27	Merrifield Water Co., S. of Colton; 135 feet W. of La Cadena Drive, 12 feet S. of Palm Ave. Use: Irrigation. Casing: 12 inches.	17966B	950	200	(d)	Sept., 1918	-	-----	25	247	21	40	46	73	15
E-77e-1-27	Riverside Highland Water Co., County Line Well, N. of Highland; 100 feet N. of Main St., 60 feet W. of A. T. & S. F. Ry. Use: Irrigation. Casing: 20 inches. Perforated 50'-227'; 282'-346'; 362'-380'.	17967	942	*420	(d)	6/24/29	-	-----	22	280	40	53	72	20	135

TABLE 18. WELLS IN RIVERSIDE AREA—Continued

Well number	Location and description	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^{-4}$ at 25 °C)	Constituents (parts per million)						
							Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	Chloride radicle (Cl)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca^{2+})	Magnesium (Mg^{2+})
E-80-H-27	Riverside Water Co., Plant 5, S. of Colton; 3500 feet S. of East N St., 1750 feet W. of Mt. Vernon Ave.; 135 feet E. of Riverside Water Co. wooden flume, 2500 feet S. of Plant 2. In Santa Ana River bottom. Use: Irrigation. Casing: 20 inches. Perforated 78-300.	17974	915	*327	(d)	8/ 1/30	...	...	...	...	...	...	...
E-81b-H-27	La Sierra Water Co., Well 7, S. of Colton; 820 feet S. of intersection of La Cadena Drive and S. 3d St., 1260 feet E. of La Cadena Drive. Use: Irrigation. Casing: 20 inches. Perforated 202-211; 217-257; 307-368.	17973	905	*363	(d)	2/25/20	...	...	...	...	...	...	...
E-82-1-27	Gage Canal Co., De Berry Plant, S. of Colton; 782 feet S. of Palm Ave., 673 feet W. of Michigan Ave. Use: Irrigation. Casing: 20 inches. Perforated 152-188; 197-209; 218-228.	17976	970	*266	(d)	Oct. 1926 S. 15/28 Sept. 1930 1973	...	...	32 29 31 31	231 260 290 277	37 41 64 44	54 55 75 51	17 19 20 14
E-87b-H-27	Riverside Water Co., Plant 3, S. of Colton; 2400 feet S. of East N St., 1350 feet W. of Mt. Vernon Ave.; 37 feet E. of Riverside Water Co. wooden flume, 1250 feet S. of Plant 2. In Santa Ana River bottom. Use: Irrigation. Casing: 20 inches. Perforated 66-88; 108-220.	17984B	919	*530	(d)	8/ 1/30	...	...	...	...	21	...	...
E-88b-H-27	Vista Grande Water Co., S. of Colton; 1490 feet S. of Washington St., 700 feet E. of Mt. Vernon Ave. Use: Irrigation. Casing: 10 inches.	17985B	930	172	(e)	9/25/26	...	...	31	281	28	48	62
E-88c-H-27	Vista Grande Water Co., S. of Colton; 1450 feet S. of Washington St., 780 feet E. of Mt. Vernon Ave. Use: Irrigation. Casing: 20 inches. Gravel 42-54.	17985C	930	*175	(d)	June 1929	...	...	...	260	95	...	...
E-91-H-27	Riverside Highland Water Co., Delta Well 3, SE of Colton; 2100 feet E. of Mt. Vernon Ave., 1250 feet N. of Washington St. Use: Irrigation. Casing: 20 inches. Perforated 34-64; 70-110; 150-166.	17994	938	*182	(d)	7/ 2/28	...	...	52	360	57	68	74
E-91a-H-27	Riverside Highland Water Co., Delta Well 4, SE. of Colton; 2300 feet N. of Washington St., 2700 feet E. of Mt. Vernon Ave. Use: Irrigation. Casing: 20 inches. Perforated 1-94; 104-134; 150-180; 228-240; 324-334; 370-380.	17994A	942	*494	(d)	7/ 2/28	...	...	47	345	47	88	68
E-92-H-27	Riverside Highland Water Co., Steam plant, SE. of Colton; 500 feet E. and 500 feet S. of the N $\frac{1}{4}$ corner of Sec. 33, T. 1 S., R. 4 W.; S. B. & M. Use: Boiler feed water.	17995	955	...	...	...	...	...	36	280	34	49	61
E-160-J-24	W. J. Hole Estate, NW. of Arlington, center of NW 1/4, Sec. 34, T. 2 S., R. 6 W., S. B. & M. Use: Not used since 1923, caved in.	16894	...	...	...	...	...	...	36	246	234	128	112
E-161-K-24	J. D. Lorenz, W. of Arlington, 1,000 feet W. of Pierce St., 490 feet S. of east and west center line of Sec. 15, T. 3 S., R. 6 W.; S. B. & M. Use: Irrigation and domestic. Casing: 4 x 5" dug well.	16899	...	x77	(d)	Jan. 1931	...	...	103	135	...	...	28
E-164d-K-24	J. C. Duekerken, Old Well, W. of Arlington; 150 feet NE. of Holden Ave., 0.25 mile NW. of Hole Ave. Use: Domestic and irrigation. Casing: 12 inches.	16917	730	*40	(e)	7/ 8/31 926	0/ 4/32	205 161	0/ 0/27	56 53	372 400	171 247	75 27
E-164e-K-24	J. C. Duekerken, New Well, W. of Arlington; 160 feet NE. of Holden Ave., 0.25 mile NW. of Hole Ave. Use: Drilling well, not yet used. Lab. No. 925 was sampled from depth of 70 feet, and Lab. No. 929 from depth of 35-45 feet, where break in casing allowed water from old well to flow in, according to owner. Lat. No. 33 and No. 931 were from depths of 50-58 feet, and 63-70 feet, respectively.	16917A	730	...	...	...	...	...	...	...	...	...	...
E-164f-K-24	Mr. J. R. Cardwell, NE. of Corona; 15 feet N. of Gramercy St., 0.18 mile W. of Holden Ave. Use: Irrigation. Casing: 7 inches. Builey No. 3610A.	16907B	755	x61	(f)	11/24/31	182	...	...	...	...	258	...
E-165-K-24	Southern California Junior College, Well 4, SW. of Arlington; 0.47 mile NW. of Magnolia Ave., 0.27 mile NE. of Pierce St. Use: Irrigation. Casing: 16 inches. Bailey No. 3615A.	16909	695	x150	(d) (s)	Dec. 1930 11/19/31	...	...	...	32	320 174	115 60	68
E-165a-K-24	Southern California Junior College, Well 1, SW. of Arlington; 0.47 mile NW. of Magnolia Ave., 0.23 mile NE. of Pierce St. Use: Irrigation. Gravel 15-27; 35-54; s1-150.	16909A	694	*150	(d)	Dec. 1930	...	...	...	256	138	...	62

TABLE 18. WELLS IN RIVERSIDE AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)							
							Boron ppm	Specific electrical conductivity at 25°C.	Sulfate radicle (SO ₄)	Chloride radicle (Cl ⁻)	Nitrate radicle (NO ₃)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
E-165d K-24	Avoid Mutual Water Co., Plant 1, SW. of Arlington; 0.20 mile NW. of Magnolia Ave.; 15 feet NE. of Golden Ave.; 20 feet SW. of new well. Use: Irrigation. Bailey No. 3614A.	16919	619	—	(e) (f) (g)	8/5/29 10/5/31 11/30/31	91 91 98	40	244	118 96 103	72 71 74	79	16	161
E-166-J-24	Twin Buttes Water Co., Plant 5, NW. of Arlington; 4,150 feet northerly at right angles to Arlington Ave.; 5,600 feet northwesterly from intersection of Pedley Road and Jurupa Ave. On S. side of Santa Ana River; no feet S. of channel. Use: Irrigation.	16923	635	—	(e) (f) (g)	8/5/28 Sept. 1928	17 29	42	275	88 88 275	49 49 96	106 106 90	17	166
E-167-J-24	Mrs. E. S. Freeman, NW. of Arlington; 600 feet W. of Tyler Ave.; 300 feet N. of Arlington Ave. Use: Domestic and irrigation. Casper, M. C. Bolby, W. of Arlington; 300 feet NW. of Cook St., 550 feet SW. of Tyler Ave. Use: Domestic and irrigation. Casper: Dug well.	16925	800	68	946	5/13/32	121	0.16	29	238	220	51	18	95
E-168-K-24	Mrs. Marie Bresson, SW. of Arlington; 1,250 feet NE. of Polk St., 675 feet SE. of Magnolia Ave.; 20 feet W. of Riverside City Limits. Use: Irrigation. Casing: 12 inches.	16939A	732	x145	(e) (f)	Nov. 1924 July 1930	—	39	146	295	75	35	89	45
E-169a-K-24	Daly Water Co., Inc., Well 1, SW. of Arlington; 1,380 feet SW. of Magnolia Ave.; 1,250 feet SW. of Polk St., 25 feet southeasterly from Well 2. Use: Irrigation. Casing: 15 inches. Perforated 66; 80; 90-112. Samples in August and September, 1918, are composite of both wells, which are same depth and perforated in same strata.	16939B	709	*112	(e) (f)	Aug. 1918 Oct. 1918	—	34	152 240	142 88	90	76	76	21
E-169b-K-24	Owner unknown. SW. of Arlington; 650 feet NE. of Polk St., 800 feet SE. of Magnolia Ave. Open rising in lack of small storage house. Use: Not used. Casing: 8 inches.	16939	730	108	(e)	16/20	—	37	207	291	100	42	135	34
E-169b-K-24	W. J. Hole, SW. of Arlington; 340 feet NW. of Magnolia Ave., 30 feet SW. of Polk St. Use: Irrigation. Casing: 20 inches. Perforated 55-97. Lab. Nos. 1,721 and 1,722 were sampled from sand stratum at depths of 13, 24 feet and 29, 55 feet, respectively. Lab. No. 1723 from gravel stratum at depth of 58-95 feet.	16939II	717	*108	1720 1721 1722 1723 1707	2/4/33 2/4/33 2/6/33 2/6/33 2/27/33	103 102 124 113 83.4	0.32 0.36 0.34 0.34 0.28	387 375 473 415 248	82 84 114 106 77	102	7	76	30
E-170-J-25	F. H. Koehlsnider, G. K. Sanborn Well 1, N. of Arlington; 60 feet S. of Jurupa Ave.; 1/2 mile E. of Van Buren St. Use: Domestic. Casing: 5 x 6" dug well.	16953	760	x56	951	5/11/32	123	0.18	38	311	176	57	27	83
E-170a-J-25	Arlington Mutual Water Co., Plant 4, N. of Arlington; 1,750 feet E. of Van Buren St., extended 2,650 feet N. of Jurupa Ave., on S. bank of Santa Ana River. Use: Irrigation. Pump draws water from battery of four wells drilled to rock along river bed.	16953A	695	45	933	5/13/32	89.5	0.12	32	311	92	60	6	94
E-172c-K-25	W. A. Caldwell, N. of Arlington; 0.20 mile E. of Van Buren St., 25 feet S. of Arlington Ave. Use: Domestic.	16945B	735	20	950	5/13/32	226	0.48	64	631	343	139	35	68
E-173a-K-25	Arlington Mutual Water Co., Plant 1-A, NE. of Arlington; 0.7 mile NE. of Van Buren St., 20 feet N. of California Ave., U.S.C. Use: Irrigation.	16956A	750	—	(e) 1582	8/5/20 12/15/32	163	0.23	30	279 293	328 306	79 196	22	157 159
E-173b-K-25	Arlington Mutual Water Co., Plant 1-B, NE. of Arlington; 0.8 foot NE. of Van Buren St., 100 feet N. of California Ave., U.S.C. Use: Irrigation.	16956B	750	x	(e)	8/5/29 12/15/32	149	0.21	34	290 274	315 274	81 73	27	150 149
E-173c-K-25	Arlington Mutual Water Co., Plant 1-C, NE. of Arlington; 0.7 to 1,803.6 feet SW. of Mooror St., 415 feet NW. of California Ave. 18 wells in open pit, 4.3 x 473.6' x 16'. Use: Not used formerly irrigation.	16956	750	x	(e)	1924	—	33	265	308	84	150	31	121
E-174-K-25	W. A. Fanning, NW. of Arlington; 135 feet SW. of Van Buren St., 36 feet NW. of California Ave. Use: Irrigation. Casing: 12 inches.	16947	763	x90	(e) 948	Sept. 1927 5/13/32	112	0.27	51	350 311	150 135	78	27	130
E-174e-K-25	N. N. Watts, N. of Arlington; 615 feet SW. of Jackson St., 46 feet NW. of Garfield St., Use: Irrigation. Casing: 16 inches. Perforated 47-74, 80-98; 107-116.	16957	745	*116	(e)	Sept. 1925	—	—	—	160	160	—	42	117
E-174e-K-25	A. Harris, NE. of Arlington; 300 feet SW. of Jackson St., 150 feet NW. of Magnolia Ave. Use: Irrigation and stock. Casing: 7 inches.	16957B	733	x72	1690	*30/33	90.5	0.25	57	268	98	62	50	18

TABLE 18. WELLS IN RIVERSIDE AREA Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)						
							Specific electrical conductivity ($\text{K} \times 10^3$ at 25°C)	Boron ppm $\text{Na} \times 100$ $(\text{Ca} + \text{Mg}) + \text{Na}$	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Chloride radicle (Cl^-)	Magnesium (Mg)	Sodium (Na)
E-174f-K-25	B Morris, NW of Arlington; 400 feet SW of Van Buren St., 330 feet SSW of California Ave. Use: Domestic and stock.	16947C	760	30	949	5/13/32	151	0.28	44	324	208	116	35
E-175 K-24	Citizens Domestic Water Co., Plant I, Arlington; 150 feet N. of Hole Ave., 200 feet NW. of Magnolia Ave. Use: Irrigation.	16948	756	-----	1551	S/ 5.28 12.15/32	87.9	0.26	42	244	125	63	15
E-175a K-24	Citizens Domestic Water Co., Plant 2, Arlington; 250 feet N. of Hole Ave., 300 feet NW. of Magnolia Ave., 80 feet N. of Plant 1. Use: Irrigation. Perforated 110-162, Bailey No. 3613G.	16948A	756	*165	(1) (1)	10.2/31 11.20/31	99	-----	42	268	107	85	16
E-175f K-24	Class. H. Meairs, Arlington; 350 feet NW. of Magnolia Ave., 350 feet N. of Hole Ave. Use: Irrigation.	16948D	757	168	705	2.12/32	83.2	0.22	259	96	76	18	89
E-176 K-24	Ellis M. Linda, S. of Arlington; 300 feet SW. of Indiana Ave., 90 feet NE. of Tyler Ave. Use: Domestic. (using 7 inches.)	16949D	762	*125	739	2.26/32	94.3	0.17	35	253	123	76	16
E-176a K-24	John A. Hanmer, SW. of Arlington; 50 feet SW. of Tyler St., 1.250 feet SW. of Magnolia Ave. Use: Irrigation.	16949A	750	-----	(1)	July 1930	-----	-----	28	208	60	23	35
E-176b K-24	F. J. Graser, SW. of Arlington; 160 feet SE. of Indiana Ave., 1.310 feet NE. of Polk St. Use: Irrigation. Gravel 83.98.	16949B	755	*18	(1)	S. 1.30	-----	28	305	128	155	120	30
E-176c K-24	F. B. Cocka, SW. of Arlington; 10 feet SW. of Indiana Ave., 1.180 feet NE. of Polk St. Use: Irrigation. Gravel 85.103.	16949C	755	*103	(1)	4/23/30	-----	39	315	128	92	80	31
E-176d K-25	O. C. McNicholl, Bedilah Springs Well, S. of Arlington; 200 feet SW. of Hughes Place, 300 feet SE. of Indiana Ave. Use: Commercial water. Flows. Pumped when bottling water.	16949	775	-----	(1)	12.5/28 2.20/30	59.5	0.54	100	664	101	80	0
E-176e K-25	R. L. Crappin, S. of Arlington; 60 feet SW. of Harrison St., 200 feet SW. of Fox St. Use: Irrigation.	16950	800	-----	(1)	760/3.2/32	59.5	0.50	90	664	99	76	0
E-176f K-24	Frank Hambleton, SW. of Arlington; 200 feet SW. of Tyler St., 0.25 mile SE. of Magnolia Ave. Use: Domestic.	16949E	750	90	1698	1.30/33	64.6	0.19	50	226	55	50	17
E-176h K-24	Dave Sampson, SW. of Arlington; 150 feet SE. of Indiana Ave., 250 feet NE. of Tyler St. Use: Domestic.	16949F	762	100	1697	1.30/33	94.2	0.17	38	201	124	84	11
E-177a J-25	M. H. Payton, SW. of Riverside; 100 feet S. of Jurupa Ave., 300 feet W. of A. T. & S. F. Ry. Use: Domestic. (using 2 inches.)	16973A	770	*5	958	5.11/32	118	0.26	49	500	69	75	13
E-177b J-25	E. G. Harris, SW. of Riverside; 650 feet N. of Central Ave., 10 feet E. of Leach St. Use: Domestic. (using 16 inches.) Perforated 65-95; 109-113.	16974A	778	*117	957	5.13/32	129	0.29	38	336	194	70	18
E-177c J-25	Oto Martin, NE. of Arlington; 50 feet N. of Central Ave., 10 feet W. of Leach St., 1,000 feet W. of Phoenix Ave. Use: Domestic and garden.	16974C	780	70	(1)	8.10/24 5.13/32	144	0.25	49	420	160	83	98
E-178d-J-25	Owner unknown, NE. of Arlington; 150 feet E. of Phoenix Ave., 30,000 feet S. of Central Ave. Use: Domestic.	16974D	180	80	955	5.13/32	149	0.28	-----	387	220	-----	-----
E-178e K-25	J. C. Latker, NE. of Arlington; 1215 feet NW. of California Ave., 655 feet NE. of Monroe St. Use: Not used. Casing: Dug well.	16966	790	65	954	5.13/32	138	0.20	35	369	227	41	18
E-179 K-25	Clyde Strat, NE. of Arlington; 20 feet S. of Arlington Ave., 30 feet NE. of Adams St. Use: Domestic.	16965	790	x40	952	5.13/32	116	0.18	47	400	122	61	29
E-180 K-25	E. R. Murphy, NE. of Arlington; 140 feet NW. of California Ave., 355 feet NE. of Monroe St. Use: Not used. Casing: 12 inches. Lab. No. 710 was sampled from water surface and Lab. No. 761 from depth of 15 feet.	16966A	755	x50	(1) 710 761	1916 2.13/32 3.2/32	48.4 49.4	0.12 0.09	76	517 137 143	171 62 66	84 39	24 2
E-180a K-25	J. C. Latker, NE. of Arlington; 10 feet SW. of Monroe St., 10 feet NW. of California Ave. Use: Irrigation. Casing: 14 inches. Gravel 27-70.	16966C	755	-----	(1)	1916	-----	39	269	500	126	31	173
E-180b K-25	W. V. Naugh, NE. of Arlington; 10 feet SW. of Monroe St., 10 feet NW. of California Ave. Use: Domestic and irrigation. Casing: 10 inches.	16966B	750	*84	1087	6.23/32	145	0.20	308	34	142	86	71
E-180c K-25	-----	16966C	750	-----	(1)	S. 28/24	-----	46	34	-----	-----	-----	37

TABLE 18. WELLS IN RIVERSIDE AREA—Continued

Well number	Location and description	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity (K_x at 25°C)	Constituents (parts per million)									
							Boron ppm	Bicarbonate radicle (HCO_3^-)	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)		
E-180-K-25	Neighbors of Woodcraft, NE of Arlington; 0.15 mile SW. of Adams St., 0.12 mile SE. of Magnolia Ave. Use: Irrigation and domestic. Casing: 16 inches. Perforated 90-96; 111-129.	16976	790	*141	(e) 336 9/19/31	184	0.22	27 33	297 290	355 375	101 92	174 171	45 42	6104 139		
E-180h-K-25	Neighbors of Woodcraft, Well 2, NE of Arlington; 0.15 mile SE. of Magnolia Ave., 0.17 miles SW. of Adams St. Use: Irrigation. Casing: 16 inches. Perforated 84 1/2; 132 1/4; 166-179.	16976C	790	*180	1724	2	7.33	167	0.24	39	262 334	88 45	143 143	40 40	152	
E-181-K-25	Sherman Indian Institute, NE of Jackson St. Use: Domestic and irrigation. Sampled on 2, 12, 32 from supply tank to which thus another well 25 feet away are connected, one of which is 124 feet deep.	16967B	770	160	704	2	12.32	73.8	0.16	46	223	80	53	13	48 22	82
E-182a-K-25	G. A. Starrett, Jackson St. Well, SE of Arlington; 55 feet SW. of Jackson St.; 300 feet NW. of Lincoln Ave. Use: Not used. Gravel 8-10; hot water from crevices in granite 38-42. Lab. Nos. 707, 708 and 709 were sampled from depths of 73, 168 and 321 feet, respectively.	16968	835	*x421	(d) 768 2,12/32 769 2,12/32 707 2,13/32	59.4 59.5 59.7	0.51 0.44 0.49	68 91 49	885 863 863 863 101	100 70	100 70	90 0	6 5	20 3	195	
E-182b-K-25	G. A. Starrett and Mr. Shearer, SE of Arlington; 650 feet SW. of Victoria Ave., 75 feet SW. of Jackson St. Casing: 7 inches. Use: Irrigation. Perforated 76-100.	16979	900	*115	(e) 1833 3,36/33	70.1	0.12	48 35	216 210	115 76	63 54	18 11	47 54	20 26	60	
E-183-K-25	J. L. Kellam, SE. of Arlington; 45 feet SE. of Cleveland Ave., 600 feet SW. of Jackson St. Use: Irrigation. Casing: 14 inches.	16979A	900	127	(e) 9/30/30	9/21/25 9/25/26 9/30/30	----- ----- -----	41 53 35	183 238 250	54 37 50	61 33 40	45 35 51	14 19 19	155 1468 151		
E-184-K-25	Madison Park Pumping Association, NE. of Arlington; 240 feet NW. of Indiana Ave., 135 feet NE. of Hoover St. 1 sec.; Irrigation.	16996	861	187	(d) 8/24/47	-----	-----	36	165	369	49	49	89	134	38	1124
E-184a-K-25	Owner unknown, Beulah Well, E. of Arlington; 150 feet SW. of A. T. & S. F. Ry., 60 feet SW. of Adams St. Use: Irrigation.	16987	845	- - -	(d) 9/23/21 4/27/22 7/26/22 8/30/22 7/15/22 7/20/22	2, 216 9/23/21 4/27/22 7/26/22 8/30/22 7/15/22 7/20/22	----- ----- ----- ----- ----- ----- -----	16 49 50 52 52 49	176 227 235 235 231 245	38 523 523 523 532 532	137 114 114 190 109 153	29 130 145 141 110 77	169 130 145 143 110 77	62 52 60 55	158 155 151	
E-185-K-25	Orange Acres Mutual Water Co. (formerly The Riverside Trust Co.), E. of Arlington; 700 feet SW. of Adams St.; 100 feet SW. of A. T. & S. F. Ry. Use: Irrigation. Gravel 102-106; 146-160; 200-214.	16987A	845	*325	(d) Nov. 1918	4, 26, 16 9/10/18	----- -----	33 34	212 220	517 340	99 96	113 39	188 139	64 53	165 120	
E-188a-K-25	E. D. Lindley, E. of Arlington; 55 feet SW. of Grattan St., 90 feet NW. of Lincoln Ave. Use: Irrigation.	16988	845	- - -	(d) 5/18/16 Nov. 1918 Jan. 1919 1/ 6/31	----- ----- ----- -----	----- ----- ----- -----	32 45 46 38	270 239 183 207	422 555 546 373	110 108 108 109	113 113 113 109	184 41 66 104	55 56 56 56	150 1255 1229 1141	
E-189-K-25	E. F. Graser, Riverside; 200 feet S. of Tequesquite Ave., 30 feet NW. of Alvarado St., extended, 0.4 mile W. of Pine St. Use: Dairy and domestic. Casing: 7 inches.	17002	769	x49	941	5, 11, 32	84.3	0.08	31	281	96	41	8	91	16	62
E-192a-J-26	Riverside Laundry, Riverside; 100 feet NW. of Brockton Ave., 420 feet SW. of 14th St. Use: Industrial. Casing: 14 inches. U. S. D. A. and D. W. R. analyses on 5/11-32 are from same sample.	17012C	795	246	940	5, 11/32	35.2	0.03	25	177 186	9	16 17	2	46	6	22
E-192d-J-26	Royal Laundry, Riverside; 300 feet SW. of 14th St., 150 feet SW. of Brockton Ave. Use: Industrial. Casing: 10 inches.	17012D	795	1042	6, 7/32	63.6	0.08	28	253	55	35	6	73	13	42	
E-192e-J-26	Orange Acres Mutual Water Co. (formerly The Riverside Trust Co.), SW. of Riverside, 70 feet SE. of A. T. & S. F. Ry., 70 feet NE. of Mary St. Use: Irrigation. Casing: 12 inches. Perforated 124-138; 150-168.	17005	875	*249	(d) Jan. 1919	----- -----	----- -----	41 39	161 201	567 503	52 75	113 20	161 155	69 53	1222 1149	
E-193a-K-26	Earl Fruit Co., SW. of Riverside; 80 feet SE. of A. T. & S. F. Ry., 660 feet NE. of Jane St. Near Parvapata Station. Use: Irrigation. Casing: 10 inches. Gravel 104-170; 180-188.	17015A	876	*x245	(d) 9/15/31	4, 26, 16 Jan. 1919	----- -----	41 43	133 213	634 627	47 47	78 78	178 172	58 58	1222 1225	
E-193b-K-26	McCormack Pumping Association, SW. of Riverside; 15 feet SE. of Indiana Ave., 15 feet SW. of Washington St. Use: Irrigation. Casing: 12 inches.	17006	x165	(d) 5/18, 16	(d) 301	----- 9/15/31	----- 219	0.23	21	223 460	76 76	43 43	119 119	49 49	215	
E-194-K-26															164	

TABLE 18. WELLS IN RIVERSIDE AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($\text{K} \times 10^6$ at 25°C)	Boron ppm	Per cent sodium $\text{Na} \times 100$	Bicarbonate radicle ($\text{Ca}_3 + \text{Mg}_2 + \text{Na}$)	Chloride radicle (Cl_3)	Sulfate radicle (SO_4)	Nitrate radicle (NO_3)	Magnesium (Mg)	Sodium (Na)	Constituents (parts per million)		
																Cations	Anions	
E-195-K-26	Owner unknown, SE ¹ of Arlington; 100 feet N. of Hermosa Drive, 240 feet E. of Jefferson St.; Use: Abandoned.	17009	1,085	75	(d) 943	1/26/16 94/8 5/12/32	1/23/31 94/8 5/12/32	0.12 0.19	28 31	287 233	117 114	52 51	74 76	35 34	149 69	159	149	
E-195a-K-26	J. J. Buckus, S. of Riverside; 750 feet W. of Washington St., 200 feet S. of Kitchener Ave., in bottom of small arroyo between Kitchener Ave. and Huntington Ave., Use: Domestic and irrigation. Casing: 8 inches. Perforated 40-56.	17018	1,040	50	(e) 1701A	8/26/29	8/26/29	—	40	329	1,597	217	—	—	—	—	1522	69
E-195b-K-26	Arlington Heights Protective Association, S. of Riverside; in bottom of small arroyo between Kitchener Ave. and Huntington Ave., 1,000 feet Southeast from Gage Canal, 40 feet W. of E-195a-K-26. Use: Abandoned, formerly irrigation.	1701A	1,040	80	(d) 17009A	1/23/33 1715	2/2/33 120	0.22	27	363	155	111	1	97	43	78	78	78
E-195c-L-26	E. B. Blinn, SE ¹ of Arlington; 200 feet S. of Hermosa Drive, 300 feet W. of St. Lawrence St., extended. Use: Not used. Tearing: Due well.	17021	845	—	(d) 17021A	Feb. 1931 1216	8/2 7/28/32	79/8	0.14	31	326	62	49	7	94	17	17	62
E-196a-J-26	Glenwood Mission Inn, Riverside; under Glenwood Mission Inn Hotel at NE ¹ , corner of 7th and Main Sts. Use: Domestic.	17021	830	—	(d) 17021A	July 1930 1/270	8/24/29 8/1/30 Feb. 1931	—	11	270	110	13	—	—	101	18	18	18
E-196b-J-26	Fox Theatre, Riverside; 25 feet NE. of 7th St., 100 feet NW. of Market St. Use: Domestic.	17031	860	—	(d) 17031A	July 1930 1/270	8/24/29 8/1/30 Feb. 1931	—	—	275	36	—	62	—	79	21	21	21
E-196d-J-26	Riverside Water Co., First Street pump, Riverside; 450 feet N. of First St., 250 feet NW. of La Cadena Drive, 40 feet E. of N. of Riverside Water Co. canal. Use: Irrigation. Casing: 24 inches. Perforated 62-74; 95-228.	17031	866	—	(d) 17031A	9/10/21 865	9/10/21 8/300	—	23	265	125	43	4	102	21	21	21	21
E-196e-J-26	City of Riverside, Mulberry St. Well, Riverside; 150 feet SW. of 8th St., 150 feet SE. of Mulberry St., Use: Municipal. Casing: 16 inches. Gravel 95-124; 143-161; 167-174; 198-214; 245-262; 275-285; 295-300.	17022	865	440	(d) 17022A	9/9/26 Aug. 1927 Sept. 1927 9/12/28 July 1929 Dec. 1929 8/1/30	9/9/26 Aug. 1927 Sept. 1927 9/12/28 July 1929 Dec. 1929 8/1/30	30 33 33 21 32 32	272 244 244 275 260 118	136 117 119 117 117 50	88 86	98 100	98 100	22 19	1667 73	1667 73	1667 73	
E-197	Riverside Water Co., 11th St. Well, Riverside; 250 feet NE. of 12th St., 150 feet NW. of Vine St., Use: Irrigation. Casing: 20 inches. Perforated 82-102; 152-190; 204-234; 260-270.	17022	815	898	(d) 17022A	5/20/25 5/27/25 7/3/25 7/3/25 7/3/25 7/3/25 8/1/26 9/4/26 10/1/26 7/1/27 7/15/27 8/15/28 9/1/30 6/13/31 9/12/32	5/20/25 5/27/25 7/3/25 7/3/25 7/3/25 7/3/25 8/1/26 9/4/26 10/1/26 7/1/27 7/15/27 8/15/28 9/1/30 6/13/31 9/8/3	35 35 35 35 35 35 35 35 30 27 27 27 27 27 27 27 27 30	201 182 186 186 186 186 186 186 207 195 195 195 195 195 195 195 195 207	182 173 173 173 173 173 173 173 172 172 172 172 172 172 172 172 172	60 79 79 79 79 79 79 79 65 57 57 57 57 57 57 57 57	103 91 91 91 91	22 22 22 22	144 144 144 144	144	144	144	
E-197a-J-26	Gage Canal Co., Olivewood Plant, Riverside; 35 feet SW. of Terracina Drive, 100 feet NW. of Olivewood Ave. Use: Irrigation. Casing: 20 inches. Perforated 70-352.	17023	880	858	(d) 17023A	8/1/30	8/1/30	—	45	244	142	33	60	60	22	22	22	22
E-197b-J-26	Riverside Water Co., Fall Pump Well, Riverside; 30 feet SE. of Riverside Water Co. canal. Irrigation. Casing: 24 inches. Gravel 74-82; 120-142; 165-210; 222-252.	17032	905	120	(d) 1041	Jan. 1930 6/7/32	124	0.12	42 35	152 143	273 271	103 45	25	104 95	23 36	120 94	130	
E-197c-J-26	Victoria Club, Riverside; on W. line of High St., extended, 80 feet S. of Ridge St., extended, in Tequesquite Arroyo. Use: Irrigation. Casing: 16 inches.	17033	905	65	(d) 1160	2/7/16	—	—	37	230	273	94	17	109	49	49	49	
E-200-K-26	George Marshall Bradley St. Well, E. of Arlington; 40 feet W. of Washington-Elsinore Road, 130 feet S. of Bradley St., Use: Irrigation.	17029	1,160	—	(d) 113	July 1927 June 1932	—	—	—	31 39	260 222	130 200	78 52	50 100	32 25	32 25	32 25	
E-201-I-26	J. R. Kelly, Riverside; 650 feet W. of Chicago Ave., 55 feet N. of Indianapolis Ave., Use: Irrigation.	17040	895	900	(d) 129	April 1928 1/20/30	—	—	—	14 14	235 275	235 152	64	64	45	45	45	45
E-201-I-26	George J. Fraley, Riverside; 75 feet N. of Indianapolis Ave., 100 feet W. of Chicago Ave., Use: Irrigation. Casing: 8 inches. Perforated 93-122. Shown on map as E-201c.	17050	900	—	(d) 129	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 18. WELLS IN RIVERSIDE AREA—Continued

Constituents (parts per million)									
Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^{-4}$ at 25°C)	Boron ppm	Per cent sodium	Constituents (parts per million)
Clearwater Co., Riverside; 150 feet N. of Pennsylvania Ave., 550 feet W. of Kansas Ave. Use: Irrigation.	17342	918	236	(e)	Jan. 1919	-	-	3.5	1.83
R. F. Fox, S. E. of Riverside; 600 feet S. of South St., 50 feet E. of Chezak Ave., extended. Use: Domestic and irrigation.	17053	920	140	(e)	June 1926	-	-	34	2.18
University of California Citrus Experiment Station, Gage Tract Well, Riverside; 133 feet E. of Chicago Ave., 0.25 mile N. of Pennsylvania Ave. Use: Not used; irrigated since 1919. Samples on 11/11/10 were composited for the operating periods of 1/10, 20, 20-30, 30-40, 40-50, 50-60, and after 60 hours, respectively.	17052	960	-	(e)	May 1927	115	0.08	30	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Chicago Ave., extended. Use: Domestic and irrigation.	17054	930	160	(e)	June 1930	11/11/19	6/10/19	47	1.83
Glenwood Investment Co., E. of Riverside; 325 feet E. of Canyon Crest Road, 225 feet S. of Linden St. Use: Irrigation. Casing: 12 inches.	17061A	1,044	x329	(e)	2/ 2/16	-	-	24	1.83
Monona Heights Water Co., E. of Riverside; 25 feet N. of Linden Ave., 30 feet E. of Gage Canal, 0.39 mile E. of Iowa Ave. Use: Irrigation. Casing: 13 inches.	17061B	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
University of California Citrus Experiment Station, E. of Riverside; 133 feet N. of Pennsylvania Ave., 55 feet E. of Gage Canal. Use: Domestic.	17062	1,020	-	(e)	11/23/18	-	-	52	1.83
A. C. Woodhill, E. of Riverside; 65 feet E. of Iowa Ave., 520 feet S. of Linden Ave. Use: Irrigation. Casing: 16 inches.	17062A	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
F. A. Ticeley, Jr., E. of Riverside; 0.14 mile S. of Pennsylvania Ave., 50 feet E. of Canyon Crest Road. Use: Irrigation and domestic. Casing: 8 inches. U.S. D.A. and D.W.R. analyses on 5/13/32 from same sample.	17063	1,055	*159	(e)	Nov. 1929	5/13/32	70 6	0 16	1.83
Box Springs Mutual Water Co., NW. of March Field; 1,000 feet E. of State Highway to Perris; 20 feet S. of Dracea Ave. Use: Domestic and irrigation. Casing: 10 inches.	17117	1,530	189	x181	July 1910	5/13/32	70 6	0 15	1.83
Twin Buttes Water Co., Plant 1, SW. of Arlington; 0.25 mile SW. of Pierce St.; 320 feet NW. of Magnolia Ave. Second well from north end of row of eighteen wells. Use: Irrigation. Perfuated 34 ft.; 70-102; 114-126. Bailey No. 3622D.	16000H	686	-	(e)	8/13/31	123 3	-	-	1.83
C. W. Main, SW. of Arlington; 63 feet N. of Magnolia Ave., 62 feet W. of Buchanan St. Use: Irrigation. Casing: 16 inches. Perforated 170-181. Bailey No. 3622D.	16000	689	-	(e)	9/20/31	141	-	-	1.83
W. J. Hole, SW. of Arlington; 0.26 mile SW. of Pierce St.; 50 feet NW. of Magnolia Ave. Use: Irrigation. Casing: 20 inches. Perfuated 34 ft.; 70-102; 114-126. Bailey No. 3622C.	16010A	688	*126	(f)	10/ 2/31	136	-	-	1.83
E. J. Generaux, Well 1, SW. of Arlington; 0.1 mile SE. of Magnolia Ave., 50 feet SW. of Pierce St. Use: Not used. Casing:	16010A	700	*102	(d)	11/24/31	133	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17053	920	140	(e)	Mar. 1928	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17054	930	160	(e)	8/ 5/28	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17055	996	189	x181	11/30/31	100	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17056	1,044	x329	(e)	11/30/31	100	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17057	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17058	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17059	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17060	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17061	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17062	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17063	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17064	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17065	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17066	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17067	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17068	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17069	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17070	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17071	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17072	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17073	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17074	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17075	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17076	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17077	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17078	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17079	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17080	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17081	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17082	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17083	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17084	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17085	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17086	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17087	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17088	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17089	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17090	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17091	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17092	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17093	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17094	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17095	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17096	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17097	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17098	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17099	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17100	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17101	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17102	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17103	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17104	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17105	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17106	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17107	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17108	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17109	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17110	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17111	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17112	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17113	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17114	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17115	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17116	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17117	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17118	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17119	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17120	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17121	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17122	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17123	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17124	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17125	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17126	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17127	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17128	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17129	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17130	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17131	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17132	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17133	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17134	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17135	1,025	400	(e)	5/11/32	5/24/16	45 9	0 10	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17136	1,020	-	(e)	11/23/18	-	-	-	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17137	996	x350	(e)	4/19/28	3/4/31	63 6	0 08	1.83
R. F. Fox, S. E. of Riverside; 135 feet W. of Kansas Ave. Use: Irrigation.	17138								

TABLE 18. WELLS IN RIVERSIDE AREA Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electric conductivity ($K \times 10^{-4} \text{ at } 25^\circ\text{C}$)	Boron ppm	Per cent sodium $\text{Na} \times 100$ ($\text{Ca} + \text{Mg} + \text{Na}$)	Constituents (parts per million)					
										Bicarbonate radicle (HCO_3^-)	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca)	Magnesium (Mg})	Sodium ($\text{Na}$)
E-299b-L-24	E. J. Generaux, Well 2, SW. of Arlington; 0.3 mile SE. of Magnolia Ave., 30 feet SW. of Iris Ave. Use: Not used. Casing: Hit needles. Perforated 59-62; 65-77; 80-98.	16010	702	*101	(d)	Nov. 1930	.....	14	280	39	60	-	78	25	122
E-304a-L-24	F. W. Knard, SW. of Arlington; 100 feet SE. of Arizona Ave., 77 feet SW. of Taylor St. Use: Domestic. Casing: 6 inches. Bailey No. 3624B.	16030	780	x60	(d) (e)	Oct. 1918 11/24/31	130	-	44 46	123 134	106 13	62 66	27 28	196 111	
E-304c-L-24	Mrs. P. W. Swanson, SW. of Arlington; 100 feet SW. of Filmore St., 20 feet SE. of Arizona Ave., extended. Use: Domestic. Bailey No. 3626A.	16024	790	.....	(d)	11/24/31	167	41	275	176	171	.....	96	35	1422
E-309-L-25	Thomas G. Thursday, S. of Arlington; 120 feet N. of Victoria Ave., 50 feet NE. of Iris St., extended. Use: Irrigation and domestic. Casing: 15 inches.	16050	840	#0	(d)	Oct. 1926	-	19	250	142	107	.....	94	47	145
E-319-L-25	E. J. Generaux, SE. of Arlington; 285 feet W. of Mockingbird Canyon Road, 785 feet SW. of Iris St., 675 feet N. of Riverside City Limits, 21 feet NW. of E. 319b-L-25. Use: Irrigation. Casing: 14 inches.	16090	1,000	.....	(d)	Feb. 1931	.....	43	280	200	120	.....	88	35	125
E-319a-L-25	J. F. Clark, Well 1, SE. of Arlington; 290 feet W. of Mockingbird Canyon Road, 500 feet SW. of Iris St., 640 feet N. of Riverside City Limits, 36 feet SE. of E. 319b-L-25. Use: Not used.	16090A	1,000	.....	(d)	Mar. 1927	.....	33	262	213	140	.....	106	44	100
E-319b-L-25	Judson F. Clark, Well 2, SE. of Arlington; 270 feet W. of Mockingbird Canyon Road, 800 feet SW. of Iris St., 660 feet N. of Riverside City Limits. Use: Irrigation.	16090B	1,000	.....	(d)	Mar. 1928	.....	55	290	195	254	.....	82	36	195
E-319c-L-25	M. B. Collins, SE. of Arlington; 42 feet S. of County Road, 140 feet W. of Mockingbird Canyon Road, 490 feet S. of Riverside City Limits. Use: Domestic and irrigation.	16091	1,000	.....	(d)	Mar. 1928	.....	268	154	.....	.....	.....	.....	.....	.....
E-325-L-26	A. Laury Butler, SE. of Arlington; 1.65 mile up Mockingbird Canyon Road from Iris St., 150 feet NE. of road, 25 feet W. and 265 feet N. of S. 1/4 corner. See 27, T. 3 S., R. 5 W., S. B. & M. & M. Use: Irrigation and domestic.	16102	1,160	.....	(d)	Aug. 1928	.....	276	177	.....	.....	.....	.....	.....	.....
E-325a-L-26	E. J. Atkins, SE. of Arlington; 1.9 mile up Mockingbird Canyon Road from Iris St., 150 feet NE. of road, 400 feet S. and 1010 feet E. of N. 1/4 corner. See 34, T. 3 S., R. 5 W., S. B. & M. Use: Irrigation and domestic.	16102A	1,260	.....	(d)	Nov. 1927	.....	256	150	.....	.....	.....	.....	.....	.....
E-329-L-26	W. Bockelman, SE. of Arlington; 100 feet W. of main road to Woodcrest from Bradley St. through Casa Blanca, 100 feet S. of Gormly Road. Use: Domestic and irrigation. U. S. D. A. and D. W. R. analyses on 5/12/32 are from same sample.	16131	1,585	43	945 (e)	5/12/32 5/12/32	63 5 63 1	0 14 0 13	38 38	149 165	80 78	27 30	44 32	19 19	54 52
E-339-L-27	Captain Gust Johnson, Woodcrest; 100 feet W. of Wood Road, 0.75 mile N. of Iris Ave. Use: Domestic and irrigation.	16160	1,585	42	942	5/13/32	131	0 15	29	137	290	31	35	92	48
E-339a-L-27	J. I. Van Zandt, Woodcrest; 200 feet N. of Iris Ave., 300 feet W. of Wood Road. Use: Domestic and irrigation.	16161	1,630	74	944	5/12/32	44 9	0 14	40	110	55	14	18	27	14
E-349-L-28	F. O'Neill, S. of March Field; 100 feet E. of Peris Highway, 70 feet N. of Iris Ave. Use: Domestic. Casing: 6 inches.	16221	1,535	110	936	5/12/32	85 4	0 10	26	131	158	10	31	71	29
															47

* Log in files of Division of Water Resources.

X Water levels in feet of Division of Water Resources.

a Includes small equivalent quantity of Carboate (CO_3^{2-}).

b Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

c Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.

d Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.

e Analysis by Edward S. Babcock and Sons, Riverside, California.

f Analysis by Edward S. Babcock and Sons, Riverside, California. Data from Case No. 22046 (Corona Foothill Lemon Co., a Corp., vs. C. E. Lillbridge, et al.), in the Superior Court of the State of California, in aid for the County of Riverside, California.

g Analysis by Association Laboratory, Anaheim, California. Data from Case No. 22046 (Corona Foothill Lemon Co., a Corp., vs. C. E. Lillbridge, et al.), in the Superior Court of the State of California, in aid for the County of Riverside.

TABLE 19. WELLS IN TEMESCAL AREA

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^{-4}$ at 25°C)	Boron ppm	Per cent sodium Na x 100 / (Ca + Mg + Na)	Constituents (parts per million)					
										Bicarbonate radicle (HCO ₃ ⁻)	Chloride radicle (Cl ⁻)	Sulfate radicle (SO ₄ ²⁻)	Nitrate radicle (NO ₃ ⁻)	Magnesium (Mg)	Sodium (Na)
E. 1472 L-21	Mrs. Ethel Nichols, NE, of Prado; 125 feet NE, of Yorba St., Ry. Use: Domestic. Bailey No. 3721C.	167897	498	x23	(e)	10/2/31 (e) 11/26/31	131 135	284	31	167 177	143	121	32	190	
E. 1474 L-21	Santa Ana Water Co., NE, of Prado; 0.43 mile NW, of intersection of A.T. & S. F. Ry. and Yorba St., 150 feet E, of Yorba St. Use: Domestic. Casing: 12 inches. Bailey No. 3716F.	16789	496	x	(e)	9/23/31 (e) 10/2/31 11/25/31	171 167 174	31 347 35	31 259 250 263	123 124	151 142	41 41	413 4132		
E. 148 K-22	Anheim Union Water Co., NW, of Corona; 0.45 mile NW, of Croydon St, on line of Rincon St., extended, 0.12 mile S, of French road. On top of hill. Use: Domestic. Casing: 6 inches. Bailey No. 3715B.	16799	615	x160	(e)	11/28/31	73	11	153	110 26	44	40	416		
E. 149j K-22	Mrs. W. C. Warner, NW, of Corona; 25 feet SW, of Auburndale Road. 0.46 mile NW, of Croydon St. Use: Domestic. Bailey No. 3701L.	16807A	530	-	(e)	11/24/31	64	35	220	60	44	-	59	13	150
E. 150 K-22	John Baldwin, NW, of Corona; 0.55 mile NW, of Croydon St., 1,000 feet SW, of Auburndale Read (River St.). On hill. Use: Domestic. Casing: 15 inches. Bailey No. 3710E.	16808	601	x134	(e)	9/23/31 (e) 10/5/31 11/24/31	82 82	57 63 65	150 150 162	131 131 128	44 54 61	41 40 36	13 9 10	194 107 112	
E. 150b K-22	Rex Clark, NW, of Corona; 1,400 feet SW, of Auburndale Road, 56 feet NW, of Croydon St. Use: Not used. Casing: 10 inches. Bailey No. 3714A.	16818A	567	x211	(e)	2/6/32	-	-	100	28	-	-	28	12	-
E. 151b L-22	Mrs. Sadie Baldwin, NW, of Corona; 0.40 mile SE, of Croydon St., 0.15 mile NE, of Rincon St. Use: Irrigation. Bailey No. 3714D.	16809B	536	x119	(e)	12/21/31	90	34	232	113	48	-	59	28	161
E. 151e-L-22	W. B. Covington, NW, of Corona; 100 feet SW, of Rincon St., extended, 200 feet NW, of Croydon St., extended. Use: Irrigation. Gravel 30-50. Bailey No. 3715E.	16809C	525	*x30	(e)	9/20/31 (e) 10/2/31 11/24/31	161 145 140	39 39 39	330 227 220	256 227 68	74 54 68	130 108 108	27 27 113	127 113	
E. 151d K-22	E. R. Wood, NW, of Corona; 0.36 mile NE, of Rincon St., 50 feet SE, of Croydon St. Use: Domestic. Bailey No. 3715G.	16809D	558	x	-	(e)	10/5/31 11/24/31	60 70	44 46	143 143 167	103 28 20	36 35 35	18 17 17	158 162	
E. 151e L-22	Mr. E. Bowen, NW, of Corona; 0.16 mile SE, of intersection of Croydon and Rincon Sts., 30 feet SW, of Rincon St. Use: Irrigation. Bailey No. 3715H.	16809E	527	*x36	(e)	9/20/31	188	-	300	-	-	-	-	-	-
E. 151h L-22	Mrs. E. Bowen, NW, of Corona; 0.19 mile SE, of intersection of Croydon and Rincon Sts., 100 feet SW, of Rincon St. Use: Domestic. Casing: 7 inches. Bailey No. 3715K.	16809F	527	-	(e)	10/2/31 11/24/31	191 211	-	36	503	319 348	89	186	42	163
E. 151i K-22	C. E. Burner, NW, of Corona; 0.15 mile SE, of intersection of Croydon and Rincon Sts., 0.10 mile NE, of Rincon St. Use: Irrigation and domestic. Bailey No. 3715D.	16809G	530	(e)	9/20/31 11/24/31	136 123	37 39	241 274	213 187	64 56	165 90	27 27	102 97		
E. 151j K-22	W. B. Covington, NW, of Corona; 200 feet SW, of Rincon St., extended, 50 feet NW, of Croydon St., extended. Use: Domestic. Casing: 7 inches. Bailey No. 3715L.	16809H	526	x429	(e)	9/20/30 10/2/31 11/24/31	184 183 140	302 302 302	245 277 277	77 68 68	8 9 9	133 130 130	34 40 40	144 143 143	
E. 151k K-22	W. M. Wright, N, of Corona; 75 feet S, of 2d St., 0.14 mile W, of Pacific Ave. Use: Domestic and irrigation. Casing: 12 inches, concrete. Bailey No. 3713A.	16828	557	x160	(e)	9/30/31 11/20/31	129 122	0.25	37	207 210	209 208	64	79	31	146
E. 153a K-22	W. M. Wright, N, of Corona; 100 feet S, of 2d St., 0.27 mile W, of Hammer Ave., 1 foot from P-153b-K-22. Use: Irrigation. Casing: 8 inches. Gravel 18-27. Bailey No. 3713C.	16838	600	*x164	(e)	9/30/31 3/21/33	119 112	-	30	205 217	60	-	-	-	140
E. 153b K-22	T. W. Mitchell, N, of Corona; 25 feet S, of 1st St., 0.15 mile E, of Pacific Ave. Use: Domestic and irrigation. Bailey No. 3724B.	16839F	584	x58	(e)	9/30/31 11/20/31	115 108	-	46	110 110	259 231	45 45	49 49	32	198
E. 153k K-22	W. M. Wright, N, of Corona; 100 feet S, of 2d St., 0.27 mile W, of Hammer Ave., 1 foot from P-153b-K-22. Use: Domestic. Casing: 2 inches, driven. Perforated well point at 100 feet. Bailey No. 3713D.	16838B	600	100	(e)	11/20/31 3/21/33	74 65	55 53	165 156	103 103	59 59	-	36 36	15	187
E. 154 K-22	E. T. Daily, N, of Corona; 0.11 mile W, of Hammer Ave., 0.09 miles S, of 2d St. Use: Domestic. Casing: 7 inches. Bailey No. 3713D.	16839A	604	x70	(e)	11/19/31	210	-	-	-	-	-	480	-	-

TABLE 19. WELLS IN TEMESCAL AREA—Continued

Well number	Location and description	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Constituents (parts per million)								
						Specific electrical conductance ($K \times 10^{-4}$ at 25°C)	Boron ppm	Percent sodium $\frac{\text{Na} \times 100}{(\text{Na} + \text{Mg} + \text{Na})}$	Bicarbonate radicle (HCO ₃)	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
E-154d-K-22	B. H. Out N. of Corona; 0.15 mile S. of 2d St., 0.16 mile W. of Hammer Ave. Use: Domestic. Casing: 10 inches. Bailey No. 3713F.	16839H	604	80	(e)	11/19/31	172	.....	384	.....	.....	.....	.....	.....
E-156c-K-23	A. Henwood. E. of Noreo; 0.28 miles S. of 6th St., 300 feet E. of Hillside Ave. Use: Irrigation and domestic. Bailey No. 365A.	16866	680	.....	(e)	11/19/31	96	.....	50	168	139	38	45	18
E-159b-K-23	W. C. Goodhue. N. of Corona; 250 feet S. of 1st St., 100 feet W. of Temescal St. Use: Domestic and irrigation. Casing: 5 inches, in 35-foot pit. Bailey No. 3618C.	16559	652	x61	(e)	11/19/31	85	.....	54	174	121	40	47	11
E-263-L-21	Unita Camp. Prado: 1,900 feet W. of Center St., 100 feet S. of State Highway. Use: Domestic. Casing: 3' x 1' dug well. Bailey No. 3720E.	15860A	493	x19	(e)	9/22/31	123	.....	42	.....	.....	.....	.....	.....
E-267-L-21	Excelior Ranch Co., Ltd. Prado: 750 feet E. of Center St., 40 feet N. of A. T. & S. F. Ry. Use: Irrigation. Casing: 16 inches. Bailey No. 3721E.	15870A	489	x57	(e)	9/22/31	96	.....	57	.....	.....	.....	.....	.....
E-267e-L-21	Excelior Ranch Co., Ltd. N. of Prado; 0.25 mile N. of intersection of Center St. and A. T. & S. F. Ry.; 100 feet E. of Center St. Use: Domestic, cooling and washing bottles. Casing: 12 inches. Bailey No. 3720A.	15870E	484	.....	(e)	9/22/31	166	.....	117	.....	.....	.....	.....	.....
E-267f-L-21	Excelior Ranch Co., Ltd. Prado: 300 feet N. of State Highway, 100 feet W. of Center St. Use: Domestic. Casing: 7 inches. Bailey No. 3720G.	15870F	492	.....	(e)	9/23/31	95	.....	117	.....	.....	.....	93	24
E-267g-L-21	Ernest Gohlert. Prado: 20 feet E. of Center St., 200 feet S. of State Highway. Use: Irrigation and domestic. Casing: 10 inches. Bailey No. 3720L.	15870G	501	.....	(e)	9/23/31	95	.....	50	.....	.....	.....	.....	.....
E-267k-L-21	Excelior Ranch Co., Ltd. Prado: 50 feet W. of Center St., 50 feet N. of road that is 700 feet S. of State Highway. Use: Irrigation. Bailey No. 3720K.	15870K	507	x--	(e)	9/22/31	102	.....	46	.....	.....	.....	.....	.....
E-267q-L-21	C. O. Dale. Prado: 200 feet N. of State Highway, 300 feet W. of Center St. Use: Domestic and irrigation. Casing: 12 inches. Bailey No. 3720-O.	15870Q	494	135	(e)	9/23/31	95	.....	50	.....	.....	.....	.....	.....
E-267r-L-21	Atchison, Topeka & Santa Fe Ry. Prado: 20 feet S. of A. T. & S. F. Ry.; 0.17 mile W. of Center St. Use: Domestic. Bailey No. 3720P.	15870R	486	.....	(e)	11/25/31	105	.....	36	.....	.....	.....	.....	.....
E-268s-L-21	O. G. Meredith. Prado: 0.35 mile E. of Center St., 1,000 feet E. and 100 feet S. of turn to South in highway through Prado. Use: Domestic. Casing: 7 inches. Bailey No. 3721N.	15880	530	.....	(e)	9/23/31	95	.....	60	.....	.....	.....	.....	.....
E-268b-L-21	R. B. Wardlow. NE. of Prado; 100 feet S. of A. T. & S. F. Ry.; 50 feet E. of Yorba St. Use: Domestic. Casing: 7 inches. Bailey No. 3721G.	15880B	512	x--	(e)	11/25/31	97	.....	107	.....	.....	.....	.....	.....
E-268e-L-21	Homer Pate. NE. of Prado; 300 feet NE. of Yorba St., 0.11 mile SE. of intersection of A. T. & S. F. Ry. and Torta St. Use: Domestic. Casing: 24 inches, tile. Dog well filled around. Bailey No. 3721H.	15880E	541	x48	(e)	9/23/31	103	.....	27	232	117	110	73	28
E-268g-L-21	C. H. Ashcroft. Prado: 300 feet E. of State Highway on projection of road that is 700 feet S. of State Highway. Use: Irrigation and domestic. Bailey No. 3721W.	15880G	545	.....	(e)	9/22/31	96	.....	50	.....	.....	.....	.....	.....
E-269-L-22	Homer Pate. E. of Prado; 650 feet S. of A. T. & S. F. Ry.; 0.34 mile E. of intersection of A. T. & S. F. Ry. and Torta St. Use: Domestic. Casing: 12 inches. Bailey No. 3721J.	15890	525	x38	(e)	9/23/31	101	.....	27	226	115	107	89	27
E-269a-L-22	Mr. Yorba. E. of Prado; 500 feet S. of A. T. & S. F. Ry., 3,500 feet W. of Railroad Ave. and Smith St. intersection, 2,000 feet N.E. of Yorba St. Use: Irrigation. Casing: 8 inches. Gravel 35'-soil. Bailey No. 3722H.	15890A	528	x80	(e)	12/19/31	104	.....	30	232	117	100	87	25
E-270-L-21	R. B. Wardlow. SE. of Prado; 0.4 mile S. of State Highway, 0.8 mile W. of intersection of Yorba St. and State Highway. Use: Domestic. Casing: 14 inches. Bailey No. 3728A.	15892	611	x164	(e)	9/22/31	111	.....	14	311	28	289	118	32
E-272-L-22	William Fisher. NE. of Corona; 550 feet SW. of Rincon St., 0.31 mile NW. of Smith Ave. Use: Irrigation. Casing: 12 inches. Bailey No. 3722B.	15900A	536	x48	(e)	9/20/31	181	.....	9	302	28	288	111	62

TABLE 19. WELLS IN TEMESCAL AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance (K x 10 ³ at 25°C)	Boron ppm	Per cent sodium Na x 100/(Ca + Mg + Na)	Constituents (parts per million)							
										Bicarbonate radicle (HCO ₃)	Sulfate radicle (SO ₄)	Chloride radicle (Cl)	Nitrate radicle (NO ₃)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
E-272a-L-22	C. E. L. C. and J. E. Lillbridge, Well 4-B, NW of Corona; 160 feet N. of A. T. & S. F. Ry., 0.30 mile NW. of Smith St., Use: Irrigation. Casing: 15 inches. Gravel 18-100. Bailey No. 3722G.	15900B	535	*x150	(e)	9/20/31 11/24/31	116 115	.....	33	290	121 117	.....	99	25	b81	
E-272c-L-22	C. E. L. C. and J. E. Lillbridge, Well 1, NW. of Corona; 500 feet SW. of Rincon St., 800 feet NW. of Smith St., Use: Irrigation. Bailey No. 3723C.	15900D	540	x	.....	(e) (e) (e)	9/20/31 9/30/31 11/24/31	154 154 152	.....	39 37 37	333 326 320	103 111 104	.....	126 127 126	24 29 26	b122 b119 b115
E-273d-L-22	C. E. L. C. and J. E. Lillbridge, Well 5, NW. of Corona; 1,100 feet SW. of Rincon St., 900 feet SE. of Croydon St., 0.67 mile NW. of intersection of Smith St. and A. T. & S. F. Ry. Use: Irrigation. Gravel 0-48. Bailey No. 3722A.	15900E	527	*x48	(e)	9/20/31 9/30/31 11/24/31	194 192 190	.....	33	404	284 287	94 98	.....	175 166	40	b136 b140
E-273e-L-22	C. E. L. C. and J. E. Lillbridge, Well 6, NW. of Corona; 700 feet N. of A. T. & S. F. Ry., 2,900 feet W. of Smith St., 600 feet W. of barn. Use: Irrigation. Gravel 18-100. Bailey No. 3722C.	15900F	529	*x100	(e)	9/20/31 9/30/31 11/24/31	134 135 123	.....	35	308 302 287	167 171 145	115 120 115	.....	116 114 101	25 23 28	b98 b106 b88
E-273f-L-22	C. E. L. C. and J. E. Lillbridge, Well 3, NW. of Corona; 900 feet N. of A. T. & S. F. Ry., 0.30 mile NW. of intersection of Rincon and Smith Sts., 1,000 feet SW. of Rincon St., Use: Irrigation. Gravel 18-70. Bailey No. 3722D.	15900G	537	*x125	(e)	9/20/31 9/30/31 11/24/31	159 156 150	.....	36	348 342 336	231 227 210	104 101 101	.....	133 116 116	30	b120 b112
E-273g-L-22	C. E. L. C. and J. E. Lillbridge, Well 2, NW. of Corona; 800 feet N. of A. T. & S. F. Ry., 0.27 mile NW. of intersection of Rincon and Smith Sts. Use: Irrigation. Gravel 24-63. Bailey No. 3722E.	15900H	537	*x65	(e)	9/20/31 9/30/31 11/24/31	148 142 144	.....	37	330	202 192 192	104 106 106	.....	108 108 108	34	b110
E-272i-L-22	C. E. L. C. and J. E. Lillbridge, Well 4-A, NW. of Corona; 100 feet N. of A. T. & S. F. Ry., 0.30 mile W. of Smith St., 10 feet W. of E-272a-L-22. Use: Irrigation. Casing: 15 inches. Gravel 18-100. Bailey No. 3722F.	15900I	535	*x150	(e)	9/20/31 9/30/31 11/24/31	118 118 117	.....	34 37 37	278 293 293	128 122 125	122 115 115	.....	101 96 96	25 24 24	b84 b90
E-273a-L-22	Robert McClintock, W. of Corona; 800 feet W. of Smith Ave., 0.30 mile N. of 1st St., 1,000 feet NE. of State Highway. Use: Irrigation. Casing: 16 inches. Bailey No. 3722G.	15901A	662	x217	(e)	9/22/31 10/2/31 11/25/31	81 84 84	.....	23	168	68 66 66	122 124 124	70	70	24	b49
E-274c-L-22	W. W. Nickle, NW. of Corona; 100 feet SW. of Railroad St., 700 feet SE. of Smith St. Use: Domestic. Casing: 3' x 4", dug well. Bailey No. 3722K.	15910D	592	x79	(e)	12/19/31 12/14 13/02 14/50	98 88.9 88.3 88.6	0.16 0.16 0.15 0.20	35 37 38 38	232 232 232 229	96 94 92 92	98 108 98 98	78 79 79 79	20 22 22 22	b48 b68 b79 b79		
E-274d-L-22	North Corona Land Co., NW. of Corona; 0.28 mile NE. of Rincon St., 300 feet E. of Smith St., extended. South well. Use: Irrigation. Bailey No. 3723B.	15910E	546	125	(e)	9/20/31 9/30/31 11/25/31	250 234 196	.....	31	748	369 369 369	64 64 64	236 236 236	56	b173	
E-274e-L-22	L. F. Robinson, N. of Corona; 0.12 mile NE. of Finchon St., 25 feet NW. of dirt road which is 900 feet NW. of Smith St. Use: Irrigation. Bailey No. 3723N.	15910F	538	80	(e)	11/25/31	190	35	540	277	84	170	42	b147
E-275e-L-22	A. F. Call Estate, Pump 67, NW. of Corona; 100 feet E. of Sherman St., 1,065 feet S. of Railroad Ave., 25 feet N. of the south well (Bailey No. 3725B or E-275-L-22). Use: Irrigation. Casing: 12 inches in bottom of 100-foot pit.	15911E	625	.....	(e)	Sept. 1918 3/26/25 6/23/25 8/25/25 12/7/27 9/22/31 10/4 11/28/31 10/5	..... ..... ..... ..... ..... ..... .....	.....	40	250 250 253 29 32 31 37	141 122 124 111 114 114 114	131 126 124 124 124 119 117	10 97 95 96 94 94 89	26 23 22 24 24 24 20	b100 b97 b77 b71 b71 b71 b80	
E-276-L-22	Corona Foothill Lemon Co. Corona; 50 feet W. of Lincoln Ave., 400 feet N. of W. 6th St. Use: Irrigation. Casing: 16 inches. Perforated 150-156; 162-201. Bailey No. 3722G.	15912	678	*x204	(e)	9/13/31 10/2/31 11/28/31	92 91 96	.....	31	194 189 189	103 124	122	86	20	b61	
E-276c-L-22	Jamison Estate, SW. of Corona; 50 feet W. of Lincoln Ave., 0.29 mile S. of Olive St. Use: Irrigation. Bailey No. 3725A.	15913	797	*x376	(e)	9/13/31 10/2/31 11/28/31	95 96 94	.....	16	23 18 18	87 78 79	124 114 114	98 94 104	26 23 25	b31	
E-277a-M-22	First Trust & Savings Bank of Pasadena, SW. of Corona; 0.45 mile S. of Ontario Ave., 50 feet E. of Mangular Ave. Use: Irrigation. Bailey No. 473A.	15904	950	*400	(e)	11/19/31 11/20/31	114	.....	7	296 301	28 29	132	55	b17		

TABLE 19. WELLS IN TEMESCAL AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electric conductance (K x 10 ⁻⁴ at 25°C)	Boron ppm	Percent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)						
										Bicarbonate radicle (HCO ₃)	Chloride radicle (Cl)	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)			
E-277b-M-22	Harry Whitecomb, SW. of Corona; 0.60 mile S. of Ontario Ave., 250 feet W. of Mangilhar Ave. North well. Use: Irrigation, Bailey No. 473B.	15904A	969	x	(e)	11/20/31	131	....	16	253	36	407	....		
E-278-M-22	Hillerest Ranch, S. of Corona; 0.15 mile SW. of Hill St., 0.20 mile E. of Lincoln Ave. Use: Irrigation. Bailey No. 471A.	1,150	*390	(e)	11/20/31	115	....	15	210	60	299	....			
E-279b-L-22	Stepp Ranch, NW. of Corona; 60 feet SE. of Goodwin St., 80 feet SW. of Harrington St. Use: Irrigation. Bailey No. 3723F.	15909B	562	95	(e)	9/20/31	182	....	32	345	295	108	....		
E-279c-L-22	Mt. Harris, NW. of Corona; 300 feet SW. of Rincon St., 200 feet SE. of Goodwin St., extended. Use: Irrigation. Bailey No. 3733J.	15920C	555	60	(e)	9/20/31	177	....	37	342	295	106	....		
E-280-L-22	Corona Heights Water Co., Hazard Well 1, NW. of Corona; 825 feet E. of Railroad St., 345 feet N. of A. T. & S. F. Ry. 960 feet N. of Cota St. Use: Irrigation. Casing: 12 inches. Bailey No. 3724Y.	15921A	*	585	*60	(e)	Sept. 1918	....	41	348	277	109	....		
E-280a-L-22	Corona Heights Water Co., Hazard Well 2, NW. of Corona; 510 feet NE. of Railroad St., 370 feet SW. of Cota St., 30 feet N.E. of A. T. & S. F. Ry. Use: Not used since 1920. Gravel 20-60. Bailey No. 3725A.	15921A	*	594	*85	(e)	9/22/31	149	....	35	192	176	109	....	
E-280c-L-22	George Shepard, NW. of Corona; 100 feet N. of Railroad St., 300 feet SE. of Cota Vista St. Use: Abandoned, formerly irrigation and domestic. Bailey No. 3725D.	15921E	*	577	x100	(e)	June 1930	176	....	366	320	277	109	....	
E-281-L-22	B. Chapin, N. of Corona; 125 feet W. of Hammer Ave., 400 feet N. of intersection of Cota St. and Hammer Ave. Use: Domestic, Casing: 12 inches. Bailey No. 3724G.	15930	x54	(e)	9/22/31	176	....	41	348	280	109	....	134	31	
E-281a-L-22	A. S. Miller, N. of Corona; 150 feet SW. of River St., 0.13 mile NW. of intersection of River St. and Hammer Ave. Use: Domestic. Bailey No. 3724S.	15930A	584	x80	(e)	9/20/31	206	....	25	217	30	109	....	134	31
E-281d-L-22	Mt. Irial, N. of Corona; 30 feet NE. of Auburndale Road (River St.), 0.10 mile SE. of Cota St. Use: Irrigation. Bailey No. 3724P.	15930D	581	x120	(e)	9/20/31	199	....	36	332	217	104	....	134	31
E-281e-L-22	G. F. Major, N. of Corona; 200 feet SW. of Auburndale Road (River St.), 0.15 mile NW. of intersection of Auburndale Road (River St.) and Hammer Ave. Use: Domestic. Casing: 8 inches. Bailey No. 3724R.	15930E	583	x100	(e)	9/20/31	208	....	35	332	217	109	....	134	31
E-281f-L-22	Orange Heights Water Co., Well 1A, N. of Corona; 50 feet E. of Hammer Ave., 400 feet N. of Auburndale Road (River St.), 80 feet N. of intersection of Cota St. and Hammer Ave. Use: Irrigation. Bailey No. 3724T.	15930F	587	x162	(e)	11/28/31	177	....	35	354	284	115	....	134	31
E-281j-L-22	George Baer, N. of Corona; 150 feet W. of Cota St., 0.20 mile S. of intersection of Cota St. and Auburndale Road (River St.). Use: Irrigation and domestic. Bailey No. 3724W.	15930J	580	x	(e)	9/20/31	196	32	384	316	122	134	31
E-281k-L-22	W. DeWitt, N. of Corona; 0.22 mile SE. of Goodwin St., 175 feet NE. of Auburndale Road (River St.). Use: Domestic and irrigation. Casing: 7 inches. Bailey No. 3724A.	15930K	565	70	(e)	9/22/31	79	....	39	156	124	46	....	134	31
E-281l-L-22	Ed Curry, N. of Corona; 25 feet NE. of Joy St., 0.21 mile SE. of Goodwin St. Use: Domestic and irrigation. Bailey No. 3724D.	15930L	584	x70	(e)	9/30/31	65	....	46	150	125	43	....	134	31
E-282-L-22	Atchison, Topeka & Santa Fe Ry. Corona Well 2, Corona; 530 feet E. of Main St., 80 feet N. of A. T. & S. F. Ry. main track. Use: Boiler feed and domestic. Casing: 15 inches.	15931	606	x167	(e)	2/10/16	....	38	103	372	107	10	112	35	1117
E-282a-L-22	Corona Foothill Lemon Co., Well 1, Corona; 175 feet W. of Merrill St., 125 feet N. of 3d St., 60 feet W. of Well 2. Use: Irrigation. Gravel 97-160. Samples are all composite of Wells 1 and 2.	15931A	*165	(e)	6/7/16	....	....	....	43	252	161	49	26	85	1114
E-282c-L-22	Corona Foothill Lemon Co., Well 3, Corona; 175 feet W. of Merrill St., 125 feet N. of 3d St. Westerly well of three. Use: Irrigation and domestic. Casing: 18 inches. Gravel 90-146. Bailey No. 3724G.	15931C	634	*x167	(e)	9/13/31	115	....	40	256	105	151	100	25	104
E-282e-L-22	Corona Foothill Lemon Co., Well 1, Corona; 175 feet W. of Merrill St., 125 feet N. of 3d St. Westerly well of three. Use: Irrigation and domestic. Casing: 18 inches. Gravel 90-146. Bailey No. 3724G.	15931C	634	(e)	11/19/31	111	....	34	253	110	143	112	28	1114	
E-282g-L-22	Corona Foothill Lemon Co., Well 1, Corona; 175 feet W. of Merrill St., 125 feet N. of 3d St. Westerly well of three. Use: Irrigation and domestic. Casing: 18 inches. Gravel 90-146. Bailey No. 3724G.	15931C	634	(e)	11/19/31	111	....	34	253	110	143	112	28	1114	

TABLE 19. WELLS IN TEMESECA AREA Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electric conductance (K _x 10 at 25°C)	Boron ppm	Per cent sodium [Na x 100/(Ca + Mg + Na)]	Constituents (parts per million)					
										Chloride radicle (Cl ⁻)	Sulfate radicle (SO ₄ ²⁻)	Nitrate radicle (NO ₃ ⁻)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
E-28d-L-22	Orange Heights Water Co., Plant 1-A, N. of Corona; 50 feet E. of Hammer Ave.; 320 feet N. of intersection of Hammer Ave. and Arbutus Road (River St.). Use: Irrigation. Casing: 26 inches. Gravel 0-162. Bailey No. 3724D.	15931D	586	162	(e)	4/4/25	38	326	331	104	-	-	155	32	b145
E-282h-L-22	Mr. Milse, N. of Corona; 500 feet W. of Hammer Ave.; 0.12 mile S. of intersection of Arbutus Road (River St.) and Hammer Ave. Use: Irrigation. Gravel 20-90. Bailey No. 3725B.	15931H	582	*x40	(e)	12/18/31	18.5	-	9	473	32	445	-	157	33
E-285-M-22	Ganth Estate, S. of Corona; 10 feet N. of Main St., 0.60 mile S. of Hill St. Use: Irrigation. Bailey No. 4714A.	15927	1,336	*x60	(e)	10/5/31	136	-	38	323	319	103	150	33	b151
E-286-L-22	Exchange Lemon Products Co., Corona; 200 feet N. of A. T. & S. P. Ry., main track, 135 feet E. of Joy St. Use: Industrial. Gravel 20-66. Bailey No. 3725F.	15941	606	*x6	(e)	4/4/25	5/25/25	-	39	324	318	104	144	30	b144
E-288a-L-22	Mr. Evans, N. of Corona; 50 feet E. of Joy St., 0.47 mile N. of A. T. & S. F. Ry. Use: Irrigation. Bailey No. 3722X.	15941A	593	x80	(e)	9/20/31	17.8	-	37	326	305	103	144	32	b133
E-286b-L-22	J. W. Campbell, N. of Corona; 30 feet E. of Joy St., 0.26 mile N. of A. T. & S. F. Ry. Use: Irrigation. Casing: 12 inches. Bailey No. 3725C.	15941B	595	x115	(e)	9/20/31	227	-	40	335	267	111	128	34	b140
E-286c-L-23	C. C. Parkridge, N.E. of Corona; 1,150 feet N. of A. T. & S. F. Ry., 2,900 feet E. of Joy St., 600 feet S. of Parkridge Tennis Courts. Use: Irrigation. Bailey No. 3630A.	15951	608	x78	(e)	9/20/31	190	-	42	320	266	115	122	32	b144
E-287c-L-22	Fred Dixon, N. of Corona; 250 feet N.E. of Joy St., 0.18 miles S. of intersection of Hammer Ave. and Joy St. Use: Domestic. Casing: 10 inches. Bailey No. 3724Q.	15940	603	100	(e)	9/20/31	181	0.34	45	320	267	113	122	32	b146
E-287-L-23	City of Corona. Corona; 600 feet N. of 6th St., 500 feet E. of Grand Blvd., 70 feet S. and 95 feet E. of NW. corner of city park. Use: Irrigation and domestic. Casing: 12 inches. Bailey No. 3630B.	15942	657	*x150	(e)	12/19/31	172	-	48	250	285	118	136	33	b144
E-287a-L-22	Temeiscal Water Co., Corona; 45 feet N. of 3d St., 125 feet E. of Joy St. Use: Domestic. Casing: 16 inches. Gravel 78-203. Bailey No. 3725L.	15942A	643	*x221	(e)	9/20/31	121	-	42	286	286	118	137	27	b151
E-287e-L-23	J. Wrightman, E. of Corona; 30 feet N. of Commercial St., at angle, 700 feet E. of Rimpau St., 0.51 mile E. of Grand Blvd. Use: Domestic. Casing: 7 inches. Bailey No. 3630E.	15952	659	x96	(e)	12/19/31	115	-	39	226	284	117	140	35	b134
E-287-L-22	Temeiscal Water Co., Call Well, S.E. of Corona; 0.20 mile E. of Rimpau Ave., 0.14 mile S. of intersection of Magnolia and Ranjana Avenues. Use: Irrigation. Bailey No. 3631A.	15953	727	x	(e)	9/20/31	111	-	37	226	188	101	125	35	b195
E-287f-L-23	Kuster and Waterbury, E. of Corona; 200 feet S. of Sampson St., 0.33 mile E. of Ranjana Ave., 200 feet S. of stock bins at gravel pit. Use: Washing gravel. Gravel 31-42. Bailey No. 3630X.	15952B	630	*x12	(e)	9/23/31	159	-	36	305	153	100	104	25	b194
E-291d-L-23	W.H. Jamison, 1/2 of Corona; 130 feet N. of 6th St., 0.62 mile E. of Poplpy Spur of A. T. & S. F. Ry. Use: Irrigation. Casing: 18 inches. Perforated 55-70; 90-126; 140-166. Bailey No. 3629C.	15972A	651	*x170	(e)	10/2/31	121	-	32	296	82	121	104	29	b181
E-291e-L-23	Kuster and Waterbury, E. of Corona; 250 feet S. of 6th St., 400 feet W. of A. T. & S. F. Ry. branch line to Elsinore. Use: Irrigation. Bailey No. 3629D.	15962A	634	x	-	12/19/31	157	-	24	256	96	161	108	29	b157
E-291f-L-23	W.H. Jamison, E. of Corona; 0.37 mile S.E. of Magnolia Ave., 60 feet E. of dirt road which is 0.15 mile SW. of intersection of 6th St. and Magnolia Ave. Use: Irrigation, domestic and stock. Gravel 30-80. Bailey No. 3632A.	15972B	663	*x90	(e)	9/23/31	92	-	34	263	82	78	73	26	b167
E-291g-L-23					(e)	11/19/31	94	-	35	290	85	76	72	25	b70

TABLE 19. WELLS IN TEMESCAL AREA -Continued

TABLE 19. WELLS IN TEMESCAL AREA—Continued

Well number	Location and description	Elevation number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity (K x 10 ⁻³ at 25°C)	Per cent sodium	Constituents (parts per million)				
									Boron ppm	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)	Magnesium (Mg)	Sodium (Na)
E-3174-M-25	Mrs. Win. Marder, Well 2, S. of Riverside; 315 feet E. and 290 feet S. of the NE. corner of SW. ^{1/4} of SW. ^{1/4} , Sec. 17, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Domestic and irrigation.	16077A	—	47	(v)	Mar. 1928	—	—	164	35	—	—	—
E-322-M-25	Miner Lewis, S. of Riverside; 765 feet N. and 83 feet E. of the SW. corner of Sec. 9, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation and domestic. Casing: 4" x 4" dug well, 60 feet of decomposed granite, bottom 20 feet shot well.	16086	1,385	*60	(v)	May 1928	—	39	160	45	42	30	18
E-322a-M-25	John Taylor, S. of Riverside; 150 feet S. and 1260 feet E. of center of Sec. 9, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation.	16096	1,370	20	(v)	April 1928	—	—	250	990	—	—	143
E-322b-M-25	Mrs. Hawkins, S. of Riverside; 725 feet S. and 650 feet E. of center of Sec. 9, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation and domestic.	16096A	1,350	73	(v)	April 1928	—	47	314	425	253	—	1258
E-322c-M-25	Mr. Rothier, S. of Riverside; 800 feet S. and 200 feet W. of the center of Sec. 9, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation.	16096B	1,355	32	(v)	May 1928	—	54	207	284	168	74	40
E-322d-M-25	Ben Yan Dell, S. of Riverside; 330 feet S. and 350 feet W. of the center of Sec. 9, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation.	16096C	1,360	50	(v)	May 1928	—	39	295	518	246	—	1250
E-322e-M-25	H. Peters, S. of Riverside; 730 feet E. and 350 feet S. of the SE. corner of NE. ^{1/4} of NW. ^{1/4} , Sec. 10, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation.	16105D	1,360	35	(v)	May 1928	—	53	418	630	332	—	140
E-322f-M-25	E. B. White, S. of Riverside; 115 feet W. and 160 feet N. of SE. corner of NE. ^{1/4} of NW. ^{1/4} , Sec. 10, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation. Casing: 4" diameter, concreted. Dug well.	16105A	1,395	25	(v)	June 1930	—	—	553	345	—	—	—
E-322g-M-26	G. H. George, S. of Riverside; 110 feet N. and 340 feet W. of the center of Sec. 10, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation.	16105B	1,395	(v)	Oct. 1927	—	—	—	510	745	—	—	—
E-322h-M-26	R. H. Kirkpatrick, S. of Riverside; 115 feet W. and 50 feet N. of the SE. corner of SW. ^{1/4} of NE. ^{1/4} , Sec. 11, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation.	16106	1,400	(v)	May 1928	—	—	—	39	192	107	40	27
E-322i-M-26	E. B. White, S. of Riverside; 115 feet W. and 180 feet N. of SE. corner of NE. ^{1/4} of NW. ^{1/4} , Sec. 10, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Abandoned.	16106A	1,400	(v)	June 1926	—	—	76	580	390	160	—	1335
E-322j-M-26	Willis Porter, S. of Riverside; 340 feet S. and 425 feet W. of the center of Sec. 11, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation.	16125A	1,445	24	(v)	Aug. 1927	—	—	50	201	60	90	40
E-322k-M-26	W. H. Wells, S. of Riverside; 200 feet W. and 30 feet N. of the SE. corner of NE. ^{1/4} of SW. ^{1/4} of See. 11, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation.	16125B	1,495	55	(v)	4-20/26	—	—	59	398	248	123	100
E-322l-M-26	A. D. Randall, S. of Riverside; 20 feet W. and 655 feet S. of E. ^{1/4} of S. W. ^{1/4} , Sec. 11, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation. Casing: 4" diameter, dug well.	16136	1,475	13	(v)	Aug. 1930	—	—	59	177	45	127	110
E-322m-M-26	Minor and Mosgrove, S. of Riverside; 700 feet S. and 200 feet W. of the center of Sec. 7, T. 4 S., R. 4 W., S. B. & M. In Cajalco Canyon. Use: Domestic and irrigation.	16156	1,551	(v)	4-3/33	212	0.08	40	262	475	136	27	50

TABLE 19. WELLS IN TEMESCAL AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	(Constituents (parts per million)								
							Boron	Baron Phm	Specific electrical conductivity ($K \times 10$ at 25°C)	Bicarbonate (HCO_3)	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calemm (Ca^+)	Magnesium (Mg^+)	Sodium ($Na^+$)
E-337a M-26	Lewis Jackson, S. of Riverside; 315 feet S. and 10 feet W. of the NE corner of NW 1/4 of SE 1/4, Sec. 12, T. 4 S., R. 5 W., S. B. & M. In Cajalco Canyon. Use: Irrigation and domestic.	16146	1,540	...	(*)	Nov. 1926	...	...	...	276	610	...	...	...	...
E-337b M-26	Frank M. Smith, S. of Riverside; 98 feet W. and 205 feet S. of the NW corner of SW 1/4 of SE 1/4, Sec. 12, T. 4 S., R. 5 W., S. B. B. & M. In Cajalco Canyon. Use: Irrigation and domestic.	16146A	1,520	50	(*)	June 1929	...	...	...	275	620	...	...	...	...

^a Log in files of Division of Water Resources.^x Water levels in files of Division of Water Resources.^b Includes small equivalent quantity of Carbonate (CO_3^{2-}).^c Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium. Data from Case No. 22946 (Corona Foothill Lemon Co., a Corp., vs. C. E. Lillbridge, et al.), in the Superior Court of the State of California, in and for the County of Riverside.^d Analysis by Association Laboratory, Anaheim, California. Data from Case No. 22946 (Corona Foothill Lemon Co., a Corp., vs. C. E. Lillbridge, et al.), in the Superior Court of the State of California, in and for the County of Riverside.^e Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.^f Analysis by Edward S. Babcock and Sons, Riverside, California.^g Analysis by United States Department of Agriculture, Rubidoux Laboratory, Rubidoux, California.

TABLE 20. WELLS IN SANTA ANA-IRVINE AREA

Well number	Location and description	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^3$ at 25°C)	Boron ppm	Per cent sodium Na $\times 100$	Constituents (parts per million)						
									Bicarbonate-Ca + Mg + Na	Chloride-HCO ₃ + Na	Sulfate-HSO ₄ + Na	Nitrate-NaNO ₃			
C-4058a-M-17	Santa Ana Valley Irrigation Co., Well 8, W. of Olive; 100 feet W. of Batavia St.; 700 feet S. of Anaheim-Olive Blvd. Use: Irrigation. Casing: 24 inches.	202	.....	335	9/19/31	62.6	0.09	33	232	46	62	4	16	50
C-1106a-M-17	Batavia Water Co., SW. of Olive; 1,000 feet S. of Fletcher Ave.; 1,500 feet E. of Batavia St. Use: Irrigation. Casing: 16 inches. Perforated 120-145; 145-157; 195-196; 205-216; 221-241; 250-280; 295-307.	195	*x311	268	8/27/31	60.8	28	244	39	53	7	66	17	41	
C-1108-N-17	Citrus Well Association, Villa Park; 300 feet S. of Villa Park Road; 15 feet W. of Wanda Ave. along W. side of S. P. R. R. Use: Domestic.	300	x550	(d)	Oct. 1918	.....	25	*231	62	154	11	92	21	49
C-1109-N-18	Villa Park Mutual Water Co., Gray Tract Plant 1, Villa Park; 610 feet N. of Lincoln St.; 900 feet W. of Center Drive. Use: Domestic and irrigation. Casing: 20 inches. Gravel 23-34; 250-261; 268-275; 290-301; 320-327; 334-337; 343-365; 381-398; 424-432; 440-445; 466-475; 480-494; 498-506; 520-542; 558-568.	320	*x576	(e)	Oct. 1918	.....	29	*213	27	114	4	65	19	46
C-1109d-N-18	Villa Park Mutual Water Co., Plant 5, Villa Park; 1,630 feet E. of Center Drive, 1,360 feet S. of Villa Park Road. Use: Domestic and irrigation. Casing: 18 inches. Gravel 207-226; 319-326; 351-362; 362-389; 411-419; about 470; about 512.	335	*542	(d)	Oct. 1918	.....	25	*262	39	177	8	86	29	52
C-1109e-N-18	Villa Park Well Co., Villa Park; 35 feet W. of Sycamore St., 360 feet E. of Serrano Ave. Use: Irrigation. Casing: 20 inches.	395	240	(d)	Oct. 1918	.....	14	*299	50	68	7	72	16	43
C-1109g-N-18	John T. Carpenter Water Co., Well 1, NE. of Orange; 350 feet E. of Alameda St.; 380 feet N. of Collins Ave., extended. Use: Abandoned in 1925, formerly irrigation.	330	473	(e)	Oct. 1918	.....	41	*263	67	226	8	76	39	113
C-1110-N-18	Villa Park Mutual Water Co., Well 2, Villa Park; 60 feet N. of Lincoln St.; 1,240 feet W. of Center Drive. Use: Irrigation.	317	480	(d)	Oct. 1918	.....	38	*262	31	173	8	81	15	74
C-1112-N-18	Santa Ana Valley Irrigation Co., Well 9, E. of Orange; 0.15 mile N. of Walnut Ave.; 400 feet E. of Prospect Ave. Use: Irrigation. Casing: 26 inches.	290	x1,106	263	8/27/31	61.9	26	*234	33	172	9	84	27	63
C-1113-N-17	David Hewes Mutual Water Co., E. of Orange; 0.12 mile W. of Prospect Ave.; 0.25 mile S. of Chapman Ave. Use: Irrigation. Casing: 18 inches. Gravel 132-140; 150-204; 234-238; 270-290; 3380-430.	251	*x430	(d)	Nov. 1918	.....	24	*244	35	176	10	84	29	48
C-1115-O-18	A. M. Robinson, NE. of Santa Ana; 0.25 mile E. of Prospect Ave.; 20 feet S. of Fairhaven Ave. Use: Not used since 1925. Casing: 24 inches.	220	x350	(e)	Nov. 1918	.....	31	*217	27	98	4	62	19	48
C-1150c-N-17	City of Orange, Well 5, Orange; 100 feet N. of Almond Ave.; 100 feet E. of Water St. Use: Municipal. Gravel 65-75; 117-133; 156-161; 181-188; 195-201; 231-239; 251-265; 277-297; 301-323; 441-449; 520-527; 619-627; 632-675; 688-723.	219	*750	(e)	4/23/31	.....	35	223	45	79	1	58	17	54
C-1151a-O-16	City of Santa Ana, Well 14, NW. of Santa Ana; 100 feet E. of Bustol St.; 100 feet S. of Santiago Creek. Use: Municipal. Casing: 26 inches. Gravel 78-94; 105-125; 164-182; 246-250; 342-360; 386-405; 402-405; 417-424; 578-603; 605-622; 702-715; 756-758.	120	*1,050	(e)	4/23/31	55.5	20	*229	35	130	7	65	14	36
C-1162b-O-16	J. H. Stewart, W. of Santa Ana; 200 feet N. of W. 5th St., 100 feet W. of King St. Use: Not used. Casing: 12 inches.	85	x	(e)	9/4/31	*319	62
C-1162c-O-16	Clarence L. Nichols, W. of Santa Ana; 100 feet S. of 5th St., 600 feet W. of Sullivan St. Use: Domestic. O. C. F. C. D. Surface Water Test Well 216.	84	(e)	9/19/32	197	0.25	35	*349	104	139	0	68	53	94

TABLE 20. WELLS IN SANTA ANA-IRVINE AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance ($K \times 10^3$ at 25°C)	Constituents (parts per million)					
								Boron ppm	Per cent sodium	Bicarbonate radicle ($\text{Na} \times 100 \frac{\text{Ca} + \text{Mg}}{\text{Ca} + \text{Na}}$)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	
C-1164a-0-16	City of Santa Ana, Well 7, Santa Ana; 50 feet S. of First St., 25 feet E. of Flower St., 25 feet N. of Wells St.; Use: Municipal. Casing: 16 inches. Perforated 426-435; 885-907.	14525A	104	*x960	(*)	4/23/31	.....	.....	.....	.....	.....	.....
C-1164b-0-16	City of Santa Ana, Well 13, Santa Ana; 200 feet E. of Flower St., 75 feet N. of Walnut St., 300 feet S. of First St.; Use: Municipal. Casing: 16 inches. Gravel 294-303; 324-345; 388-906.	14525B	104	*x950	(*)	4/23/31	.....	.....	226	40	155	.....
C-1164d-0-16	City of Santa Ana, Well 12 East, Santa Ana; 325 feet E. of Olive St., 175 feet N. of 6th St., 25 feet E. of C-1191-0-16; 1/4 mile. Municipal. Casing: 16 inches. Perforated 330-368; 440-456.	14525K	113	*x466	(*)	4/23/31	.....	.....	214	25	145	.....
C-1164e-0-16	City of Santa Ana, Well 16, Santa Ana; 150 feet S. of First St., 250 feet W. of Flower St.; Use: Municipal. Casing: 26 inches. Perforated 214-225; 293-327; 340-350; 358-375; 470-490; 505-571; 875-942; 1030-1042.	14525C	103	*x1,140	(*)	4/23/31 9/17/31	84 4	0 12	22	232 265	47 69	150 101	8
C-1165a-0-17	Achison, Topka & Santa Fe Ry., Santa Ana; 200 feet S. of 4th St., 30 feet E. of A. T. & S. F. Ry. Near depot. Use: Industrial. Gravel 4-70; 75-80; 130-140; 150-160; 280-300.	14515A	114	*x510	265	8/27/31	87 7	.....	20	277	69	119 14	98 33
C-1174a-P-16	La. Bolsa Tile Co., SW. of Santa Ana; 1200 feet S. of Edinger St., 200 feet W. of Greenville Road. Use: Irrigation. Casing: 10 inches.	14497	53	150	689	2/ 3/32	63 5	0 18	22	235	39	74 4	78 18
C-1174b-P-16	S. H. Manderscheid and W. R. McClintonck, SW. of Santa Ana; 700 feet E. of Greenville Road; 20 feet S. of Delhi Road. Use: Irrigation and domestic. Casing: 12 inches.	14498	44	x800	686	2/ 3/32	44 7	0 16	35	207	14	48 1	45 13
C-1179a-P-17	The Irvine Co., Plant 28, Well 42S, S. of Tustin; 0.22 mile NW. of Redhill Ave., 0.23 mile NE. of A. T. & S. F. Ry. Near Well 1256. Use: Irrigation. Perforated 424-432; 470-478.	14577A	92	*x500	(*)	1920	.....	.....	30	256	28	138 4	68 19
C-1179d-0-17	P. H. Elbel, S. of Tustin; 45 feet SW. of Mitchell Ave., 660 feet SE. of Newport Blvd. Use: Irrigation.	14576	106	200	(*)	Oct. 1918	.....	.....	25	243	34	140 4	81 23
C-1180a-P-17	Owner unknown. Test hole, S. of Santa Ana; 100 feet E. of Main St., 100 feet S. of Sunflower Ave., extended. Casing: None.	13330E	34	6	(*)	12/11/30	.....	.....	418	4,319	.....	.....	.....
C-1191-0-16	City of Santa Ana, Well 9, Santa Ana; 300 feet E. of Olive St., 175 feet N. of 6th St.; Use: Municipal. Casing: 16 inches. Perforated 910-938; 1024-1030; 1070-1090.	14525E	113	*x1,100	(*)	4/23/31	.....	.....	195	15	135	.....	.....
C-1192-0-16	City of Santa Ana, Well S., Santa Ana; 75 feet S. of 1st St., 25 feet E. of Flower St., 25 feet S. of C-1164a-0-16. Use: Municipal. Casing: 16 inches. Perforated 100-140.	14525D	104	*x151	(*)	4/23/31 9/17/31	64 1	0 10	26	227	41	155 36	74 9
C-1193b-0-17	C. James Klatt, NE. of Santa Ana; 250 feet N. of 17th St., 1,050 feet W. of Yorba St. Use: Irrigation. Casing: 12 inches.	14564B	172	x496	(*)	1920	.....	.....	13	226	46	122	12
C-1193c-0-17	F. G. Fuller Ranch, E. of Santa Ana; 225 feet S. of 17th St., 900 feet W. of Prospect Ave. Use: Irrigation. Casing: 10 inches.	14574C	166	220	(*)	Nov. 1918	.....	.....	21	232	47	118 14	81 26
C-1195a-0-18	Lemon Heights Water Co., E. of Tustin; 1,325 feet NE. of Irvine Blvd., 250 feet S. of Newport Ave. Use: Abandoned and filled. New well drilled two feet from this well.	14584	163	.....	(*)	Oct. 1918	.....	.....	26	201	30	147 14	67 21
C-1205a-1*-16	La. Bolsa Tile Co., SW. of Santa Ana; 0.5 mile E. of Greenville Road, 0.5 mile N. of Delhi Road. Use: Irrigation. Casing: 12 inches.	14507	52	1,350	683	2/ 3/32	35 0	0 11	91	a167	13	26	0
C-1205b-P-16	A. E. Selvage, SW. of Santa Ana; 840 feet E. of Greenville Road, 90 feet N. of Delhi Road. Use: Domestic. Casing: 4 inches.	14508	44	104	685	2/ 3/32	52 8	0 14	27	226	25	55	4
C-1206a-P-17	F. A. Stewart, S. of Santa Ana; 75 feet W. of McWayne St., 0.25 mile S. of McFadden St. Use: Domestic and irrigation. Casing: 8 inches.	14547	92	x44	308	9/17/31	154	0 09	16	320	137	362	18 60
C-1207a-0-18	The Irvine Co., Plant 40, Well 1180, SE. of Tustin; 200 feet SE. of Browne Ave., 200 feet N. of Bryant Ave. Use: Irrigation. Casing: 16 inches. Perforated 35-347.	14596A	97	*x418	(*)	1922 9/25/28 3/25/29	94 5	0 2	23 39	253 313	40 68	168 134	88 110 (1)
C-1207b-0-18	F. B. Browning, E. of Tustin; 1,500 feet S. of Red Hill Ave., 70 feet NE. of Irvine Blvd. Use: Irrigation. Casing: 12 inches. Perforated 200-400; 667-774.	14605	113	*x10	270	9/ 3/31	110 1	0 12	27	238	160	127	13 32

TABLE 20. WELLS IN SANTA ANA-IRVINE AREA—Continued

Well number	Location and description	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity (K _X 10 ⁻³ at 25°C)	Constituents (parts per million)						
							Boron (ppm)	Per cent sodium Na × 100 Ca + Mg + Na	Bicarbonate radicle (HCO ₃)	Chloride radicle (Cl)	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)	Magnesium (Mg)	Sodium (Na)
C-1207d O-1s	The Irvine Co., Plant 45, Well 1189, E. of Tustin; 1,000 feet NE. NW. of Myford Road, 35 feet SE. of Peters Canon Road, 4.25 feet inches. Perforated 60-468.	14616	145	*469	(4) (5)	Sept. 1929	—	—	—	—	—	—	32 34
C-1207e O-1s	The Irvine Co., Plant 46, Well 1194, SE. of Tustin; 2,500 feet SE. of Browning Ave.; 2,500 feet NE. of Irvine Blvd. Use: Irrigation. Casing: 12 inches. Perforated 135-202.	14616A	62	*271	(4) (5) (6) (7) (8)	6/17/20 5/20/25 9/25/28 5/15/29 6/8/29 7/3/29	52 63 52 51 52 44	262 348 342 355 346 44	110 200 240 237 232 206	141 — — — 191 114	7 — — — — 33	52 92 172 — — 30	
C-1207g-O-1s	The Irvine Co., Plant 70, Well 1233, E. of Tustin; 2,500 feet NE. of Irvine Blvd., 1,250 feet SE. of Peters Canon Road, 70 feet NW. of Myford Road, extended. Use: Irrigation. Casing: 12 inches. Perforated 200-215; 45-275.	14616B	163	*x879	(4)	Aug. 1929	—	—	52	318	142	364	43 186
C-1207h-O-1s	The Irvine Co., Plant 71, Well 1234, E. of Tustin; 1,110 feet SW. NW. of Myford Road, Use: Irrigation. Casing: 12 inches. Perforated 300-320; 331-930.	14616B	122	*x1,007	(4)	Aug. 1929	46	275	54	140	54	26	
C-1207k-O-1s	F. B. Browning, Red Hill Groves Well 2, E. of Tustin; 1,350 feet SE. of Red Hill Ave., 200 feet NE. of Irvine Blvd. Use: Irrigation. Casing: 15 inches.	14605B	114	—	(4) (5) (6) (7)	3/19/26 June 1927 4/24/29	26 Tr. 26	223 225 221	92 124 155	— — 133	— — 116	86 94 116	
C-1207l-O-1s	Perry Lewis, E. of Tustin; 1,320 feet SE. of Red Hill Ave., 1,640 feet NE. of Irvine Blvd., 1,000 feet SW. of La Colina Drive. Use: Irrigation.	14605C	143	304	(4)	Oct. 1918	—	33	*x204	39	86	5	52 22
C-1207m-O-1s	Holmes Loan and Realty Co., E. of Tustin; 1,310 feet NE. of Irvine Blvd., 1,000 feet SE. of Red Hill Ave. Use: Irrigation. Casing: 18 inches.	14605D	142	300	(4)	Nov. 1918 11/15/22	38 42	279 240	44 80	91 96	6 10	69 75	
C-1207n-O-1s	Holmes Loan and Realty Co., E. of Tustin; 600 feet SE. of Red Hill Ave., 100 feet SW. of 17th St. Use: Irrigation. Casing: 12 inches.	14604	175	300	(4)	Oct. 1918 Nov. 1918	— —	39	253 229	381 361	44 160	131 122	
C-1208b-P-1s	The Irvine Co., Plant 50, Well 1169, SE. of Tustin; 0.27 mile SE. of Browning Ave., 0.23 mile NE. of State Highway. Use: Irrigation. Casing: 20 inches. Perforated 475-1070.	14597B	87	*x1,488	(4) (5) (6) (7)	3/12/26 July 1926 3/25/29	51 40	260 256 285	36 35 100	103 53 192	— — —	44 40 40	
C-1208c-P-1s	The Irvine Co., Plant 1, Well 554, Pit 22, SE. of Tustin; 0.22 mile SW. of Bryant Ave., 0.51 mile NW. of Myford Road. Use: Irrigation. Casing: 15 inches. Perforated 175-186.	14607	84	*x194	(4) (5) (6) (7)	7/23/20 9/25/28 2/18/29 3/25/29	134 0 —	27 30 298 347	80 299 90 98	197 106 106 98	— — — —	— — — —	
C-1208g-P-1s	The Irvine Co., Plant 32, Well 1154, SE. of Tustin; 250 feet SW. of Bryant Ave., 0.22 mile NW. of Myford Road. Use: Irrigation. Casing: 16 inches. Perforated 35-454.	14607D	89	*x470	(4)	Dec. 1929 June 1927	0 0.10	47 33	398 305 305	117 178 178	289 555 555	28 128 128	
C-1208i-P-1s	The Irvine Co., Plant 73, Well 1236, SE. of Tustin; 200 feet SE. of Myford Road, 0.2 miles SW. of Irvine Road. Use: Irrigation. Casing: 15 inches. Perforated 334-915.	14617A	118	*x626	(4)	Aug. 1929	48	305	73	195	68	30	
C-1208j-P-1s	The Irvine Co., Plant 26, Well 831, SE. of Tustin; 1,300 feet NW. of Myford Road, 100 feet SW. of State Highway 101 in Lot 40. Use: Abandoned and filled over. Casing: 15 inches. Perforated 56-64; 200-710.	14607E	76	*945	(4)	Dec. 1929	35	275	23	110	1	46	
C-1209a-P-1s	The Irvine Co., Plant 14, Well 730, SE. of Browning Ave. Use: Irrigation. Casing: 24 inches.	14597D	88	*x250	(4) (5)	1920 3/25/29	—	23	277 336	86 116	— —	— —	
C-1210c-P-1s	The Irvine Co., Plant 31, Well 720, SE. of Tustin; 3,300 feet SE. of Browning Ave., 1,580 feet NE. of A. T. & S. F. Ry. Center of Lot 35. Use: Not used. Casing: 12 inches. Perforated 180-192; 300-1260.	14598B	63	*1,288	(4)	1920	—	56	183	28	153	0	
C-1210d-P-1s	The Irvine Co., Plant 33, Well 1157, SE. of Tustin; 2,720 feet SE. of Browning Ave., 2,310 feet NE. of A. T. & S. F. Ry. Use: Irrigation. Casing: 16 inches. Perforated 30-366.	14598C	66	*330	(4)	1923	—	240	47	100	50	—	

TABLE 20. WELLS IN SANTA ANA-IRVINE AREA Continued

Well number	Location and description	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductance ($K \times 10^{-4}$ at 25°C)	Constituents (parts per million)					
							Boron ppm	Per cent sodium bicarbonate ($C_{\text{Na}} + M_{\text{Na}}^+$)	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Magnesium (Mg^{2+})
C-1210e-P-18	The Irvine Co., Plant 3N, Well 1178, SE. of Santa Ana; 1.05 mile E. of Browning Ave.; 2,200 feet NE. of Delin Road. Use: Irrigation. Casing: 15 inches. Perforated 35-335, where casing collapsed.	49	*x390	(4)	1923	—	—	262	142	100	—	50
C-1210f-P-18	The Irvine Co., Plant 52, Well 1200, SE. of Tustin; 0.32 mile NW. of Myford Road; 0.32 mile SW. of State Highway. Use: Irrigation. Casing: 20 inches. Perforated 319-1200.	62	*x1,344	(4)	July 1926	61	235	29	98	—	28	15
C-1210g-P-18	The Irvine Co., Plant 19, Well 691, Pit 2, S. of Tustin; 2,560 feet SE. of Browning Ave.; 1,270 feet N.E. of A.T. & S.F.R.R. Use: Irrigation. Casing: 15 inches. Perforated 0-89.	66	*x86	(4)	1920	24	256	60	261	14	120	34
C-1210h-P-18	The Irvine Co., Plant 29, Well 744, Pit 4, SE. of Tustin; 4,550 feet SE. of Browning Ave.; 330 feet N.E. of A.T. & S.F.R.R. Use: Irrigation.	59	*x31	(4)	1922	58	300	75	402	0	83	46
C-1210i-P-17	The Irvine Co., Plant 30, Well 915, S. of Tustin; 30 feet SE. of Browning Ave.; 100 feet SW. of A.T. & S.F.R.R. in N. corner of Browning Ave.; 330 feet N.E. of A.T. & S.F.R.R. Use: Irrigation. Casing: 15 inches. Perforated 232-1060.	69	*x1,060	(4)	1920	63	213	19	96	0	30	9
C-1210j-P-18	Frances Mutual Water Co., Well 10, SE. of Tustin; 1,380 feet SE. of Browning Ave.; 1,940 feet SW. of State Highway 101. Use: Irrigation. Casing: 20 inches. Perforated 180-220. Analyses, Feb. 1910, were sampled from depths of 1,157, 1,095, and 1,173 feet, respectively.	68	*x1,525	(4)	Feb. 1919	—	60	308	87	142	0	51
C-1210k-P-18	Frances Mutual Water Co., SE. of Tustin; Well 1, within 50 feet of Well 10 or C-1210j-P-18. Use: Abandoned and filled in when Well 10 was drilled.	68	*x1,516	(4)	Nov. 1930	—	60	330	80	144	2	55
C-1210l-P-18	Frances Mutual Water Co., Well 2, SE. of Tustin; 2,485 feet SE. of Browning Ave.; 1,925 feet SW. of State Highway 101, 70 feet S. of Well 12. Use: Not used since Well 12 (C-1210m-P-18) was drilled. Casing: 12 inches.	75	*x100	(4)	Aug. 1918	—	60	335	81	139	0	55
C-1210m-P-18	Frances Mutual Water Co., Well 12, SE. of Tustin; 2,430 feet SE. of Browning Ave.; 1,880 feet SW. of State Highway 101, 70 feet N. of Well 2. Use: Irrigation. Casing: 20 inches. Perforated 115-2165.	75	*x1,516	(4)	Nov. 1930	—	60	320	117	380	—	180
C-1210n-P-18	The Irvine Co., Plant 27, Well 987, SE. of Tustin; 2,150 feet SE. of Browning Ave.; 1,650 feet N.E. of A.T. & S.F.R.R. Use: Not used. Casing: 15 inches. Perforated 36-92, 130-160. Analyses, Feb. 1910, were sampled from depths of 1,157, 1,095, and 1,173 feet, respectively.	70	*1,084	(4)	1923	—	60	308	87	142	0	51
C-1210o-P-18	The Irvine Co., Plant 41, Well 1183, N. of Irvine Ave.; 2,10 feet SW. of Trabuco Road; 0.47 mile NW. of Jeffrey Road. Use: Irrigation. Casing: 20 inches. Perforated 256-1520.	157	*x1,603	(4)	1923	—	60	305	266	700	—	50
C-1210p-P-18	The Irvine Co., Plant 21, Well 1004, NW. of Irvine Ave.; 0.57 mile SW. of State Highway; 30 feet NW. of Culver Road. Use: Well abandoned and plant removed. Casing: 24 inches. Perforated 150-1245.	82	*1,280	(4)	1920	—	63	300	625	820	19	242
C-1211e-P-18	Frances Mutual Water Co., Well 9, N. of Irvine; 850 feet SE. of Culver Road; 70 feet N.E. of Bryant Ave. Use: Irrigation. Casing: 20 inches. Perforated 235-1235. Analyses on 3/30/20 were from depths of 800, 1,000, 1,200, 1,300 and 1,350 feet, respectively.	14628	*x1,397	(4)	3/30/20	—	61	—	81	150	0	41
C-1211f-P-18	Frances Mutual Water Co., Well 13, SE. of Tustin; 2,475 feet SE. of Myford Road; 600 feet NE. of State Highway 101. Use: Irrigation. Casing: 20 inches.	14618	*x1,412	(4)	July 1925	63	323	48	157	—	40	20
C-1211j-P-18	The Irvine Co., Plant 53, Well 1203, NW. of Culver Road. Use: Irrigation. Casing: 20 inches. Perforated 255-1296.	14629	*1,485	(4)	Jan. 1919	—	52	372	54	142	0	54
C-1211k-P-18	The Irvine Co., Plant 80, Well 1245, SE. of Tustin; 60 feet SE. of Myford Road; 135 feet SW. of State Highway. Use: Irrigation. Casing: 20 inches. Perforated 807-1300.	14608	*x1,553	(4)	5/20/30	—	57	360	135	105	—	102

TABLE 20. WELLS IN SANTA ANA-IRVINE AREA Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^{-4}$ at 25°C)	Constituents (parts per million)							
								Boron	Chloride radicle (Cl ⁻)	Sulfate radicle (SO ₄ ²⁻)	Nitrate radicle (NO ₃ ⁻)	Calcium (Ca)	Magnesium (Mg)		
C-1211o-P-18	Frances Mutual Water Co., Well 7, N. of Irvine; 2,000 feet NW of Jeffrey Road, 50 feet SW. of Bryant Ave. Use: Abandoned and filled up.	14639B	192	.....	(d)	Jan. 1919	.....	68	336	54	134	0	40	14	±156
C-1211n-P-18	Frances Mutual Water Co., Well 6, N. of Irvine; 3,900 feet NW of Jeffrey Road, 50 feet SW. of Bryant Ave. Use: Abandoned.	14639A	175	*1,124	(e)	Nov. 1918	.....	55	250	270	141	0	84	28	±182
C-1211p-P-18	W. L. West, E. T. McFadden and W. H. Walker, NW. of Irvine; 1,300 feet SE. of Culver Road, 610 feet SW. of State Highway 101. Use: Domestic. Casing: 12½ inches. Gravel 358; 379; 397-402.	14629B	107	*402	(d)	Sept. 1929	.....	50	332	232	140	100	100	30	±169
C-1211q-P-18	Frances Mutual Water Co., Well 5, SE. of Tustin; 200 feet NW. of Culver Road, 50 feet NE. of Bryant Ave. Use: Abandoned. Casing: 12½ inches.	14628A	130	*570	(d)	Aug. 1918 1924	.....	63	305	51	124	1	40	14	±124
C-1211r-P-18	The Irvine Co., Penman Well 1, Well 1271, SE. of Tustin; 3,300 feet NW. of Culver Road, 2,600 feet SW. of State Highway 101, 660 feet NW and 40 feet NE. of S. corner of Lot 181. Use: Not Used. Casing: 7½ inches. Perforated 172-220.	14605A	67	*236	(d)	6/27/32 7/6/32	.....	78	57	415	1,080	.....	105	60	±850
C-1212d-P-19	The Irvine Co., Plant 47, Well 1227, SE. of Tustin; 0.48 mile NE. of Irvine Blvd. 150 feet SE. of Culver Road. Use: Irrigation. Casing: 15 inches. Perforated 245-253; 258-266; 326-334; 356-400.	14637A	188	*x1,206	(d)	Nov. 1928 Aug. 1929	.....	63	366	60	140	.....	40	22	±150
C-1213b-P-19	The Irvine Co., Plant 65, Well 1225, NE. of Irvine; 0.48 mile NW. of Central Ave., 150 feet SW. of Irvine Blvd. Use: Irrigation. Casing: 12 inches. Perforated 195-215; 245-286; 510-530; 550-575; 700-755.	14659B	266	*x861	(b)	3/25/29 6/8/29 6/8/29 7/3/29 Aug. 1929	176 0 0 0	48	342	322	304	.....	95	57	±199
C-1213c-P-19	The Irvine Co., Plant 66, Well 1226, NE. of Irvine; 0.48 mile NE. of Irvine Blvd., 150 feet SE. of Jeffrey Road. Use: Irrigation. Casing: 12 inches. Perforated 252-270; 355-380; 450-500; 540-590; 610-700; 740-765.	14658	301	*x896	(d)	Aug. 1929	.....	54	306	210	344	.....	144	54	±183
C-1216b-P-19	The Irvine Co., Plant 37, Well 1170, N. of Irvine; 0.47 mile NW. of Central Ave., 30 feet NE. of Trabuco Road. Use: Irrigation. Casing: 20 inches. Gravel 253-257; 277-282; 1215-1345; 1345-1375.	13440	219	*x1,660	(e)	7/25/22 7/10/23 9/25/28 2/18/29 3/25/29 8/20/31	178 0 0 0 0	44	312	328	179	.....	143	58	±268
C-1216c-P-19	The Irvine Co., Plant 62, Well 1223, N.E. of Irvine; 0.47 mile NW. of Central Ave., 200 feet SW. of Bryant Ave. Use: Irrigation. Casing: 20 inches. Perforated 310-380.	13450B	240	*x967	(e)	July 1928 2/15/29 3/25/29	.....	43	290	56	210	.....	104	50	±276
C-1216d-P-19	The Irvine Co., Plant 64, Well 1224, NE. of Irvine; 80 feet NW. of Central Ave., 0.48 mile NE. of Trabuco Road. Use: Irrigation. Casing: 12 inches. Perforated 365-400; 429-450; 475-540.	13450C	275	*x830	(d)	Sept. 1928 3/25/29	.....	56	314	226	470	.....	80	44	±246
C-1217a-Q-19	Southern California Edison Co., Ltd., NE. of Irvine; 150 feet NE. of Trabuco Road, 0.45 mile SE. of Central Ave. Use: Domestic and plant. Casing: 6 inches. Perforated 378-388.	13454	278	*x429	(e)	8/20/31	.....	50	338	222	230	.....	.....	.....	.....
C-1217e-Q-20	The Irvine Co., Plant 58, Well 1156, E. of Irvine; in N. corner, Lot 300, Block 174, 2½ miles NE. of State Highway 101, ½ mile NW. of SE. ranch line. Use: Irrigation. Casing: 9½ inches. Perforated below 160 feet.	13503	505	*335	(d)	Dec. 1923 1/19/31 Aug. 1931 8/21/31	.....	39	335	217	375	.....	124	70	±175
C-1217f-P-19	The Irvine Co., Well 298, E. of Irvine; 4,000 feet NE. of Irvine Blvd., 1,100 feet SE. of Lambert Road, excreted. Use: Irrigation. Casing: 15 inches. Perforated 60-220.	13480	440	*232	(e)	Feb. 1920 1/24/22	.....	50	314	167	405	.....	122	37	±207
C-1217g-Q-19	The Irvine Co., Plant 55, Well 1210, NE. of Irvine; 0.47 mile SW. of Trabuco Road, 150 feet NW. of Lambert Road. Use: Irrigation. Casing: 12 inches. Gravel 295-298; 444-463.	13452B	276	*x746	(d)	May 1927 9/25/28 2/18/29 3/25/29	.....	45	295	59	90	.....	65	23	±46
C-1217h-Q-19	The Irvine Co., Plant 56, Well 1211, S. of Irvine; 0.82 mile SW. of State Highway 1, 340 feet SE. of Laguna Ave. Use: Irrigation. Casing: 15 inches.	13452C	177	*x898	(d)	June 1927	.....	36	292	65	240	.....	90	35	±37

TABLE 20. WELLS IN SANTA ANA-IRVINE AREA—Continued

Well number	Location and description	Elevation of ground	Location number	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^{-3}$ at 25°C)	Constituents (parts per million)						
								Boron ppm	Per cent sodium	$\text{Na} \times 100$ ($\text{Ca} + \text{Mg}$ + Na)	Bicarbonate radicle (HCO_3^-)	Sulfate radicle (SO_4^{2-})	Chloride radicle (Cl^-)	
C-1217p-Q-19	The Irvine Co., Plant 57, Well 1214, E. of Irvine; 0.47 mile SW of Trabuco Road; 0.53 mile SE. of Lambert Road. Use: Irrigation. Casing: 12 inches. Perforated 180-420.	13453	294	*X527	(d)	Oct. 1927 (d) July 1928 (k) (b) (d)	12 / 9.27 9.25 / 28 9.25 / 29 Aug. 1932 (d)	62 42 50 42	176 172 65 302 335	94 88 78 86 61	19 21 100 169 80	109 89 117 107	19 21 100 25 25	
C-1217q-Q-19	The Irvine Co., Plant 61, Well 1222, E. of Irvine; 0.4 mile SE. of Central Ave.; 0.12 mile SW. of Trabuco Road. Use: Irrigation. Casing: 12 inches. Perforated 240-635.	13451B	285	*X762	(d)	July 1928	.....	45	262	92	252	80	32	e125
C-1217s-Q-19	The Irvine Co., Plant 60, Well 1221, SE. of Irvine; 0.22 mile SE. of Lambert Road, extended 100 feet SW. of A. T. & S. F. Ry. Use: Irrigation. Casing: 12 inches. Perforated 230-474.	13453	245	*X649	(d)	July 1928 (b) 3.25/29	.....	55	262 268	170 162	224	84	25	e180
C-1218-R-20	McGuire Ranch, El Toro; 1,800 feet NW. of Aliso Canyon Road; 1,200 feet SW. of A. T. & S. F. Ry. Use: Irrigation. Casing: 12 inches.	13507	400	460	(d)	Mar. 1925 (a)	5 / 8.23 1922	.....	85 65	143 130	355 355	52	9	e150 e330
C-1218s-R-20	W. A. Cornelius, El Toro; 2,000 feet SW. of A. T. & S. F. Ry., 500 feet SE. of Aliso Canyon Road. Use: Irrigation. Casing: Dug well with concrete pit.	13507A	398	.....	(d)	.....	.....	290	30	75	.....	116	25	.....
C-1218b-R-20	R. H. Prothero, S. of El Toro; 4,100 feet SE. of Aliso Canyon Road; 2,500 feet SW. of A. T. & S. F. Ry. Use: Not used. Casing: 1214b-R-20. Use: Irrigation. Casing: 12 inches. Gravel 36-32, shale 60-1600.	1351s	380	42	(d)	5 / 8.22	.....	50	332	145	553	.....	160	25
C-1218e-R-20	G. H. Scott, El Toro; 5,800 feet SE. of Aliso Canyon Road; 1,000 feet W. of A. T. & S. F. Ry. Use: Irrigation. Casing: 12 inches.	1351sB	110	(d)	Dec. 1929	.....	44	317	177	403	.....	170	35	e205
C-1219-Q-20	The Whiting Co., Wall 1, NE. of El Toro; 0.75 mile NE. along Aliso Canyon Road from Trabuco Road, thence 0.17 mile along road running N. and NE. through Whiting Tracts Nos. 910 and 950, 10 feet E. of road, in Block 15, Tract 910. Use: Irrigation.	13535	.....	.....	(d)	1929	.....	20	202	48	92	67	23	e31
C-1219a-Q-20	The Whiting Co., Well 2, NE. of El Toro; 0.75 mile NE. along Aliso Canyon Road from Trabuco Road, thence 0.16 mile along road running N. and NE. through Whiting Tracts Nos. 910 and 950, 10 feet E. of road, in Block 15, Tract 910. Use: Irrigation.	13535A	.....	.....	(d)	1929	.....	26	194	60	170	.....	73	e50
C-1219b-Q-20	The Whiting Co., Well A, NE. of El Toro; 0.75 mile NE. along Aliso Canyon Road from Trabuco Road, thence 0.16 mile along road running N. and NE. through Whiting Tracts Nos. 910 and 950, thence SE. 200 feet, in Block 6, Tract 950. Use: Irrigation.	13534	.....	.....	(d)	1929	.....	50	226	120	1,052	.....	211	e332
C-1219c-Q-20	McC Osterman, N. of El Toro; 2,200 feet N. and 600 feet E. of SW. corner, Sec. 12, T. 6 S. R. 8 W., S. B. B. & M. Use: Domestic. Casing: 4 x 4" dug well.	13533	35	(d)	1922 3.18/25	.....	34	170	78	292	.....	93	33	e85
C-1219d-Q-20	Prospect Ranch, Jerome-Browning Well, NE. of El Toro; 2,200 feet E. and 2,400 feet S. of NW. corner, Sec. 12, T. 6 S. R. 8 W., S. B. B. & M. Use: Irrigation. Casing: 15 inches. Perforated 125-504.	13533	*X804	(d)	Sept. 1929	.....	28	244	64	100	.....	90	15	50
C-1219g-Q-20	The Irvine Co., Plant 68, Well 1230, S. of Irvine; 0.45 mile SE. of Laguna Ave., 100 feet SW. of Valencia Ave., extended. Use: Irrigation. Casing: 12 inches. Perforated 210-220; 274-403.	13443A	203	*X894	(d)	Aug. 1929	.....	48	223	154	196	.....	84	26
C-1220d-Q-19	The Irvine Co., Well 1146, S. of Irvine; 75 feet SE. of State Highway 101, 90 feet NW. of Laguna Blvd. Use: Not used. Casing: 15 inches.	13443B	205	*535	(d)	1922	.....	38	260	117	178	.....	87	32
C-1220h-Q-19	The Irvine Co., Plant 59, Well 1217, SE. of Irvine; 1.03 miles SE. of Laguna Ave., 100 feet SW. of Valencia Ave., 400 feet SW. of State Highway. Use: Irrigation. Casing: 12 inches. Perforated 200-420.	13454C	220	*X918	(d)	1. 3.28 July 1928 2. 18.29 (b) (h)	.....	59 54	244 244 278 258 246	174 168 176 176 246	295 280 255 296 296	200 200 255 90 26	c100 200 14	

TABLE 20. WELLS IN SANTA ANA-IRVINE AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^{-3}$ at 25°C)	Per cent sodium Na x 100 Ca + Mg + Na	Constituents (parts per million)					
									Boronate radicle (HCO ₃)	Chloride radicle (Cl ⁻)	Sulfate radicle (SO ₄)	Nitrate radicle (NO ₃)	Magnesium (Mg) Ca	Sodium (Na)
C-1220t Q-19	The Irvine Co., Plant A7, Well 1193, Irvine; 0.25 mile SE. of Central Ave., 100 feet NE. of Valencia Ave. Use: Irrigation.	13433B	187	x	(d)	3/18/25	52	24.4	156	188	273	50	24	c150
C-1222b-Q-18	The Irvine Co., Well 1114, W. of Irvine; 0.51 mile SE. of Jeffrey Road, 510 feet SW. of Valencia Ave. Use: Abandoned. Casing: 12 inches. Perforated 418-451.	13422B	138	*x506	(d)	5/20/25 9/25/28 2/18/29 3/25/29	0.2	4.8 5.4	30.0 24.4 28.1 25.6	163 150 150 160	173 172 148	100 113	30	c160
C-1222e-P-18	Robert Jeffrey, SE. of Justin; 3,900 feet SE. of Culver Road, 2,600 feet NE. of A. T. & S. P. Ry., near corner of NE. line of Lot 145. Use: Irrigation. Casing: 15 inches. Perforated 300-369.	13420	136	*969	(d)	4/1/31	-	-	-	-	-	-	-	c154
C-1223d-P-18	Wm. Jeffrey, NW. of Irvine; 50 feet NW. of Jeffrey Road, 50 feet SW. of State Highway. Use: Irrigation. Casing: 15½ inches. Perforated 30-1240.	13431	156	*1,240	(d)	4/14/31	-	-	-	-	-	-	-	c155
C-1223e-Q-18	The Irvine Co., Plant 39, Well 1173, W. of Irvine; 2,550 feet SW. of Jeffrey Road, 75 feet SW. of Valencia Ave. Use: Irrigation. Casing: 20 inches. Gravel-packed well.	13411	191	*x1,586	(d)	10/22/28 2/18/29 3/25/29	0.1	4.8 3.2	27.3 39.7 26.6	124 146 116	150 192 144	0 160	74	c120
C-1223j-Q-18	The Irvine Co., Plant 35, Well 1161, W. of Irvine; 2,000 feet SE. of Jeffrey Road, 150 feet NE. of Valencia Blvd. Use: Irrigation. Casing: 20 inches. Perforated 263-1503.	13422C	142	*x1,503	(d)	9/25/28 2/18/29 3/25/29	10.4	0.20	4.4 3.9	25.0 28.3 26.9	112 148 122	127 168 140	0 116	c101
C-1222k-P-18	The Irvine Co., Plant 48, Well 1177, NW. of Irvine; 3,400 feet SE. of Culver Road, 140 feet SW. of A. T. & S. P. Ry. Use: Irrigation. Casing: 16 inches. Perforated 60-520.	13421A	99	*540	(d)	Sept. 1925 2/18/29 3/25/29	-	-	43 32	27.3 39.7 26.6	124 146 116	0 160	74	c40
C-1222n-P-18	The Irvine Co., Plant 79, Well 1244, NW. of Irvine; 0.73 mile SE. of Culver Road, 648 miles NE. of Valencia Blvd. Use: Irrigation.	13401B	99	x----	(d)	4/18/30	-	-	68	24.4	125	-	-	c260
C-1223o-Q-18	A. J. McFadden, W. of Irvine; 75 feet NW. of Jeffrey Road, 70 feet NE. of Valencia Ave. Use: Not used, capped below ground. New well 200 feet deep, 12 feet SE. and 30 feet SW. of this well.	13421B	125	600	(d)	Dec. 1918	-	-	39	25.0 27.9 24.2 24.6 25.8	112 148 121 121 128	127 168 140	0 116	c101
C-1222p-Q-18	C. B. Cubbins, NW. of Irvine; 0.51 mile NW. of Jeffrey Road, 1,000 feet NW. of Valencia Ave. Use: Irrigation.	13411A	104	78	(d)	Dec. 1918	-	-	31	28.0	87	158	94	c275
C-1222q-Q-18	C. B. Cubbins. NW. of Irvine; 0.51 mile NE. of Jeffrey Road, 900 feet NE. of Valencia Ave. Use: Irrigation.	13411B	102	114	(d)	Dec. 1918	-	-	35	29.3	83	34.5	28	c26
C-1222r-Q-19	The Irvine Co., Plant 17, Well 1113, Irvine; 150 feet SW. of State Highway 101, 520 feet SE. of Culver Road. Use: Irrigation. Casing: 15 inches. Perforated 255-690.	13442A	200	*720	(b) (d)	2/18/29 3/25/29 10/20/31	-	-	310 302 262	106 116 128	180 94 320	0 - -	-	c83
C-1223-Q-18	The Irvine Co., Plant 9, Well 707, W. of Irvine; 1,200 feet NE. of Harkle Road, 55 feet SE. of Jeffrey Road. Use: Not used. Casing: 15 inches. Perforated 255-299.	13412	116	*x301	(d)	Jan. 1919 1921	-	-	51 58	223 214	159 152	66 66	0 0	c142
C-1224-Q-18	The Irvine Co., Well 1238, W. of Irvine; 2,700 feet NW. of Jeffrey Road, 2,730 feet NE. of Harkle Road. Use: Domestic. Casing: 15 inches.	13402	96	x310	(d) (k) (l)	10/21/28 8/20/31	0.1	-	70 45	23.5 24.4 22.4	214 257 224	42 172 22	2 163	c173
C-1224b-Q-18	The Irvine Co., Plant 8, 13, W. of Irvine; 0.65 mile SE. of Culver Road, 150 feet SW. of Harkle Road. Use: Domestic. Casing: 15 inches.	13402A	100	*951	(d)	10/2/28	-	-	26	24.4	62	123	64	c142
C-1224c-P-18	The Irvine Co., Plant 82, Well 1246, SE. of Tustin; 90 feet NW. of Culver Road, 90 feet NE. of Valencia Ave. Use: Irrigation. Casing: 20 inches. Perforated 40-1000.	13400	67	*1,145	(d)	7/3/30	-	-	20	22.5	105	82	70	c35

TABLE 20. WELLS IN SANTA ANA IRVINE AREA. Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electric conductivity ($\text{K} \times 10^{-3}$ at 25°C)	Constituents (parts per million)							
								Boron ppm	Per cent sodium ($\text{Na} + \text{Mg}$ + Na)	Chloride (Cl)	Sulfate (SO_4)	Nitrate-nitrite ($\text{NO}_3^- + \text{NO}_2^-$)	Magnesium (Mg)		
C-1224e-Q-1s	The Irvine Co., Plant 6, Well 1239, W. of Irvine; 0.41 mile SE. of Culver Road, 0.25 mile SW. of Valencia Blvd. Use: Irrigation. Casing: 20 inches. Perforated 345-745.	13401A	83	*X1,120	(d)	Oct. 1929	-	.49	290	146	50	50	22	.95	
C-1224f-Q-1s	The Irvine Co., Plant 11, Well 939, W. of Irvine; 2,615 feet SE. of Culver Road, 1,370 feet NE. of Culver Road, at center of NW. line of Lot 200. Use: Irrigation. Casing: 15 inches. Perforated 300-385.	13402B	87	*X3,88	(d)	B20 9/25-28 2/18-29 (b) (c) (d) (e) (f) (g)	97.2 0.50 0.66 0.45 0.40 0.50	57 57 45 62 72 122	238 281 344 317 222 222	198 106 100 108 235 238	120 115 58 108 23 67	0 0 4 51 51 57	72 84 19 19 15 15	.156 .133 (e) .156 .283 .211	
C-1225e-Q-17	The Irvine Co., Plant 10, Well 471, SE. of Santa Ana; 1,200 feet SE. of intersection of Lane Road and Culver Road, 1,200 feet SE. and 400 feet SW. of N. corner of Lot 210. Use: Domestic, only, formerly irrigation. Casing: 12 inches. Perforated 306-322; 384-402.	13383A	71	*408	(d)	7/23/20 8/21/28 2/18/29 3/25/29 (b) (c) (d) (e) (f) (g)	102 1.00 1.02 0.96 0.96 1.00	90 95 300 349 192 14	247 191 188 186 189 13	5 0 6 8 8 8	0 9 9 8 0 2	9 9 6 6 0 2	.200 .207		
C-1225f-Q-18	The Irvine Co., Plant 12, W. of Irvine; 3,300 feet SW. of Hale Road; 3,200 feet SE. of Culver Road. Use: Not used. Casing: 12 inches.	13393	90	(e)	1920	-	42	214	165	100	17	S2	23	.100	
C-1227b-Q-18	The Irvine Co., Plant 75, Well 1241, S. of Tustin; 0.25 mile SW. of Delhi Road, 300 feet NW. of Culver Road. Use: Irrigation. Casing: 20 inches. Perforated 400-420; 500-520.	13394	73	*X3,68	(d)	3/11/30	-	45	252	174	140	77	40	.133	
C-1227e-P-18	The Irvine Co., Plant 78, Well 1243, S. of Tustin; 100 feet NE. of Delhi Road, 250 feet NW. of Culver Road. Use: Irrigation. Casing: 20 inches. Perforated 410-600.	13394A	69	*X1,103	(e)	3/11/30	-	47	242	178	72	77	31	.115	
C-1227d-P-18	The Irvine Co., Well 1247, S. of Tustin; 3,700 feet NW. of Culver Road, ad. fort. NL. of Delhi Road. Use: Not used. Casing: 20 inches. ad. perforated 407-1012 originally; then perforated 410-485; 525-545; 620-630-705-745; 810-830; 970-900; 508-740.	13380	52	*1,166	(e)	8/15/30	-	31	214	78	50	60	23	.50	
C-1227f-Q-17	The Irvine Co., Plant 25, Well 1042, S. of Santa Ana; 0.51 miles NW. of Culver Road, 1.27 miles SW. of Delhi Road. Use: Irrigation. Casing: 12 inches. Gravel-sand 240-260; 388-395; 508-740.	13372	48	*X8,08	(d)	B20 8/21/28 2/18/29 (b) (c) (d) (e) (f) (g)	96.5 1.00	0.68 0.68 0.68 0.78 0.67 0.67 0.67	95 88 98 238 244 260 260	180 176 164 172 160 160 160	14 31 24 167 176 26 26	0 0 0 7 27 0 0	5 12 3 7 7 3 3	.204 .207	
C-1227m-P-1s	The Irvine Co., Plant 22, Well 1057, S. of Tustin; 1,320 feet SW. of Valencia Ave.; 60 feet NW. of Culver Road. Use: Domestic and stock. Casing: 15 inches. Perforated 30-900; 490-1010; 0.85 mile NE. of Lane Road. Use: Irrigation.	13390	68	*1,026	(d)	19/20 2/18/29 ----	-	70	220	159	54	0	38	10	.147
C-1228c-P-17	W. Pollard, Well 2, S. of Tustin; 2,200 feet SE. of Newport Blvd., 0.85 mile NE. of Lane Road. Use: Irrigation.	13340A	40	*592	(d)	4/26/32	-----	64	366	460	745	140	65	.500	
C-1228g-P-17	The Irvine Co., Well 1253, S. of Santa Ana; 1,320 feet SE. of Newport Blvd., 95 feet NE. of Lane Road. Use: Not used. Casing: 20 inches. Analysis on 5/28-31 from bottom stratum. June 27, 1931; 12-inch casing collapsed at 550 feet (210-inch) casing from 0 to 408.5 feet, leaving 750 feet of 4-inch cleaning line and 2 joints of 2-inch air line in well.	13330C	34	*1,430	(e)	5/28/31	-----	40	153	53	106	38	22	.58	
C-1230b-P-17	Holy Savior Co., Well 1, S. of Santa Ana; 900 feet N. of Dyer Road, 355 feet W. of S. P. R. R. in NW. corner of Holy Savior Co.'s Dyer St. plant. Use: Industrial. Casing: 12 inches. Open bottom and not perforated.	14548E	55	*1,010	262	8/27/31	34.6	-----	S3	131	42	0	3	.75	
C-1231g-P-17	The Irvine Co., Plant 44, Well 935, S. of Tustin; 1,270 feet NE. of Delhi Road, 45 feet SE. of Browning Ave., in N. corner of Lot 32. Use: Irrigation. Casing: 15 inches. Perforated 380-410; 494-504; 560-565; 720-740; 750-762; 800-810; 850-870; 150-152. Analyses in May, 1932, having per cent Sodium of 39, was taken after same of lower strata was shut off.	14579A	57	*1,346	(d)	19/23 2/18/29 5/15/29 (b) (c) (d) (e) (f) (g)	65.5 0.38 0.38 63.4 62.6	256 256 114 189 99 0.47	1085 126 92 14 94 17	41 7 3 (e) 0 0 0	.006 .138 .135 .132 0 0 0				

TABLE 20. WELLS IN SANTA ANA-IRVINE AREA—Continued

Well number	Location and description	Location number	Elevation of ground	Total depth of well in feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^{-4}$ at 25°C)	Constituents (parts per million)							
								Boron (BpM)	Per cent sodium (Na)	Na \times 100 Ca + Mg + Na	Chloride radicle (Cl ⁻)	Sulphate radicle (SO ₄ ²⁻)	Nitrate radicle (NO ₃ ⁻)		
C 1232e P-17	The Irvine Co., Plant 4, Well 130, S. of Tustin; 1,270 feet NE. of Delhi Road, 50 feet SE. of Red Hill Ave. in N. corner of Lot 94. Use: Not used. Casing: 15 inches. Perforated 30, 35, 150-189.	1456c*	67	*199	(d)	7/23/20	...	40	296	34	136	5	39	40	e80
C 1233-P-17	The Irvine Co., Plant 5, Well 1251, S. of Tustin; 30 feet SW. of Delhi Road, 50 feet SE. of Newport Blvd. Use: Not used. Casing: 20 inches. Gravel-packed well.	14558	66	x - - -	(d)	7/23/20	...	18	232	35	150	8	62	28	e3*
C 1233-P-17	The Irvine Co., Plant 5, Well 1251, S. of Tustin; 30 feet SW. of Delhi Road, 0.24 mile NW. of Red Hill Ave. Use: Irrigation. Casing: 15 inches. Water from stratum at 400 feet, shells below 515 feet.	14558A	63	*x1,186	(d)	Feb. 1931	...	18	222	35	60	-	62	22	e24
C 1234a P-17	Fitzpatrick Bros. and E. Cobbons, S. of Santa Ana; 1,384 feet N. of Delhi Road, 154 feet W. of Medley St. Use: Irrigation. Casing: 15 inches. Water from stratum at 400 feet, shells below 515 feet.	1454c	70	715	(d)	June 1925	76.1	0.08	27	252	36	122	74	23	45
C 1234b P-17	Holly Sugar Co., Well 4, S. of Santa Ana; 75 feet S. of Dyer Road, 150 feet W. of Dyer Road intersection with Newport Blvd., 50 feet E. of Well 3. Use: Industrial. Perforated 450-82.	14549B	50	*845	261	8/27/31	46.6	40	198	16	58	0	41	12	47
C 1236c P-17	The Irvine Co., Plant 51, Well 11-S. S. of Santa Ana; 3,900 feet NE. of Lane Road, 60 feet SE. of Newport Ave. Use: Irrigation. Casing: 18 inches. Perforated 220-320, 380-740.	14549C	42	*775	(d)	1923	...	42	160	21	42	0	30	11	e40
C 1243a Q-16	The Irvine Co., Plant 16, Well 1038, S. of Santa Ana; 1,350 feet SE. of Newport Blvd., 0.68 mile N.E. of Palisades Blvd. Use: Irrigation. Casing: 12 inches. Perforated 420-570.	13322A	45	*952	(d)	1920	...	92	405	23	22	0	5	5	e165
C 1243e Q-16	Santa Ana Heights Water Co., S. of Santa Ana; 550 feet SE. of Newport Blvd., 120 feet SW. of Palisades Road, N. of Santa Ana Country Club. Use: Municipal. Casing: 16 inches.	13312B	33	x720	(d)	6/16/31	101.3	...	94	256	195	1	0	4	5
C 1244a-Q-16	Newport Heights Irrigation District, S. of Santa Ana; 100 feet NE. of Palisades Road, 550 feet NW. of Santa Ana Ave., extended. W. of reservoir. Use: Irrigation.	13313	48	x609	61	6/16/31	64.8	...	90	226	92	3	0	6	5
C 1244d-Q-16	The Irvine Co., Plant 15, Well 715, S. of Santa Ana; 150 feet S. of Palisades Road, 135 feet W. of Santa Ana Ave. Near Well 283. Use: Occasional irrigation.	13313C	45	...	(d)	1920	...	...	92	358	143	14	0	7	6
C 1244i-Q-16	The Irvine Co., Plant 7, S. of Santa Ana; 375 feet NE. of Palisades Road, 1,650 feet SE. of Santa Ana Ave. Use: Abandoned and filled in 1932.	13323	25	...	(d)	July 1932	...	...	84	268	110	41	...	Tr.	e162
C 1245b-Q-16	Whittier Ranch, SW. of Santa Ana; 200 feet N. of N. line of Banning Tract, 200 feet E. of Old Santa Ana Rd. 1,500 feet S. of Adams Ave. Use: Domestic and irrigation.	13293	63	...	...	654	1,26/32	37.3	0.18	72	192	14	20	0	73
C 1254 P-15	Owner unknown. SW. of Santa Ana; 300 feet E. of E. levee of Santa Ana River; 30 feet S. of Talbert Read. In old pump house. Use: Irrigation. Casing: 7 inches.	14479	35	x - - -	(d)	11/17/31	...	...	114	20	...	...	...	...	...

* Log in files of Division of Water Resources.

x Water level in feet of Division of Water Resources.

a Includes small equivalent quantity of Carbonate (CO₃²⁻).b Sulphate (SO₄²⁻) determined by turbidity method.

c Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

d Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.

e Analysis by Orange County Flood Control District, Santa Ana, California.

f Analysis by Charles Dickens, Oakland, California.

g Calcium and Magnesium determined together and calculated to equivalent quantity of Calcium.

h Analysis obtained from The Whiting Co., Los Angeles.

i Calcium and Magnesium determined together and calculated to equivalent quantity of Calcium by Division of Water Resources.

TABLE 21. SURFACE AND SUBSOIL WATERS IN SANTA ANA-IRVINE AREA

Number	Location and description	Elevation of ground	Discharge in second-feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^4$ at $25^\circ C$)	Constituents (parts per million)				
							Boron ppm	Sulfate radicle (SO_4^{2-})	Chloride radicle (Cl^-)	Magnesium (Mg)	
S15718-N-18	SURFACE WATERS Santiago Creek, NE of Villa Park. Sampled from Santiago Water Co. and John T. Carpenter Water Co. division box, 0.5 mile above mouth of canyon, in SW 1/4 of Sec. 13, T. 4 S., R. 9 W. Canal diverts from creek 0.12 mile upstream. Discharge gives combined discharge of Santiago Creek and Santiago and Carpenter Canal from U. S. G. S. unpublished records. Use: Irrigation.	S15718 425	- - - - -	(5) (6)	Oct. 1918 June 1927	- - - - -	26 26 295 32 314 30 229 34	213 203 17 16 17 15 129 1	86 106 38 44 43	b61 b60 b61 43	
S13260n-P-15	SUBSOIL WATERS Newport Drainage District, tile drain outlet, SW, of Santa Aaa; 1 mile W. of Fairview Ave., 0.35 mile N. of Gisler St. at NW corner of Poncetta Ranch.	S13260A 60	- - - - -	632 693	1/19/32 2/3/32	347 259	0.46 0.33	57 54	250 284 167 957	18 10 154 10	105 82 105 82
S13262-Q-15	SUBSOIL WATERS Newport Drainage District, open drainage ditch, SW, of Santa Aaa. Sampled at O. C. F. C. D. drainage gaging station 10,500 feet N. of Adams Ave., 5,600 feet W. of Fairview Ave. The drainage comes in about 1.25 miles up drain.	S13262 60	- - - - -	692	6/ 1/32	259	0.41	- - - - -	264	- - - - -	- - - - -
S13281-P-15	SUBSOIL WATERS Newport Drainage District, tile drain manhole, SW, of Santa Aaa; 25 feet W. of Fairview Ave., 1,000 feet N. of Gisler St.	S13281 29	- - - - -	691	2/ 3/32	232	0.43	- - - - -	290 170	- - - - -	- - - - -
S13291-P-16	SUBSOIL WATERS Newport Drainage District, tile drain manhole, SW, of Santa Aaa; 0.5 mile S. of Huntington Road, 15 feet E. of Old Santa Ana Road.	S13291 30	- - - - -	688	2/ 3/32	248	0.46	- - - - -	305 110	- - - - -	- - - - -
S13300-P-16	SUBSOIL WATERS Newport Drainage District, tile drain, S, of Santa Aaa; 1,000 feet E. of Greenville Road, 15 feet N. of Wakeman Ave., 25 feet E. of Bear Road, 0.25 mile N. of Paulino Ave.	S13300 33	- - - - -	682	2/ 3/32	61.3	0.20	- - - - -	207 52	- - - - -	- - - - -
S13301-Q-16	SUBSOIL WATERS Delhi Drainage District, tile drain manhole, S, of Santa Aaa; SW, of Palisades Road, 1,400 feet SE, on Newport Ave.	S13301 30	- - - - -	(4) (4)	4/ 1/31 6/ 1/32	- - - - -	- - - - -	- - - - -	296 98	- - - - -	- - - - -
S13313-Q-16	SUBSOIL WATERS Delhi Drainage District, open drainage ditch, S, of Santa Aaa; Sampled at O. C. F. C. D. drainage gaging station 8,300 feet SW, of Palisades Road, 1,400 feet SE, on Newport Ave.	S13313 20	- - - - -	(4) (4)	4/ 1/31 6/ 1/32	- - - - -	- - - - -	- - - - -	347 306 1,302	- - - - -	- - - - -
S13314-Q-16	SUBSOIL WATERS Delhi Drainage District, open drainage ditch, N, of Newport SW, of Palisades Road at The Irvine Co. weir.	S13314 5	- - - - -	(e) -	Julae 1930 -	- - - - -	73	427 425	1,976 1,976	- - - - -	193 75
S13352-Q-17	SUBSOIL WATERS The Irvine Co. open drainage ditch, SE, of Santa Aaa. Sampled on N. line of Lane Road, 6,300 feet NW, of Culver Road. The Irvine Co., open drainage ditch, SE, of Santa Aaa. Sampled at O. C. F. C. D. drainage gaging station 6 on N. line of Lane Road, 1.05 miles NW, of Culver Road.	S13352 36	- - - - -	(4) (4)	4/ 1/31 6/ 1/32	- - - - -	- - - - -	- - - - -	343 1,006	- - - - -	- - - - -
S13362-Q-17	SUBSOIL WATERS Newport Drainage District, tile drain manhole, SW, of Santa Aaa; 15 feet N. of Delhi Road, 1,200 feet E. of Greenville Road.	S13362 35	- - - - -	(4) (4)	4/ 1/31 6/ 1/32	- - - - -	- - - - -	- - - - -	324 642 481	- - - - -	- - - - -
S14498-P-16	SUBSOIL WATERS Newport Drainage District, tile drain manhole, SW, of Santa Aaa; 900 feet W. of Greenville Road, 0.6 mile N. of Talbert Road.	S14498 42	- - - - -	690	2/ 3/32	199	0.32	- - - - -	332 130	- - - - -	- - - - -
S14508-P-16	SUBSOIL WATERS Newport Drainage District, tile drain manhole, SW, of Santa Aaa; 1,200 feet E. of Greenville Road, 2,000 feet S. of Delhi Road.	S14508 44	- - - - -	684	2/ 3/32	148	0.45	- - - - -	253 41	- - - - -	- - - - -
S14509-P-16	SUBSOIL WATERS Newport Drainage District, tile drain manhole, SW, of Santa Aaa; 1,200 feet E. of Greenville Road, 2,000 feet S. of Delhi Road.	S14509 40	- - - - -	687	2/ 3/32	248	0.48	- - - - -	293 98	- - - - -	- - - - -

^a Includes small equivalent quantity of Carbonate (CO_3^{2-}).^b Alkaline bases estimated by difference between sum of cation equivalents and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.^c Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.^d Analysis by Orange County Flood Control District, Santa Aaa, California.

TABLE 22. SURFACE WATERS ABOVE LOWER CANYON OF SANTA ANA RIVER

Number	Location and description	Elevation of ground	Discharge in second- feet	Labora- tory number	Date	Specific elec- trical conduc- tance (K ^x 10 ⁻³ at 25°C)	Per cent sodium Na + Mg + Na	Constituents (parts per million)							
								Boron Boron (HCO ₃)	Chlo- rine radicle (Cl ⁻)	Sul- phate radicle (SO ₄)	Nitrate radicle (NO ₃)	Calci- um (Ca)	Magni- esium (Mg)	Sodium (Na)	
S5428 D-20	San Antonio Creek, NW of Upland. Sampled from tailrace of Southern California Edison Co., Ltd., power house, 4 miles above mouth of canyon. Discharge given as combined discharge of San Antonio Creek and Southern California Edison Co. ^a canal, from W. S. P. No. 721 and U. S. G. S. unpublished records.	3,250	11.9	104	7/3/31	28.4	..	13	150	0	14	1	45	9	
			9.7	216	8/12/31	28.5	..	9	108	0	14	1	46	12	
			8.2	282	9/10/31	31.6	Tr.	4	105	0	14	1	46	10	
			7.6	446	10/10/31	28.6	..	..	105	0	16	..	..	3
			7.4	494	11/1/31	28.8	0.04	..	103	0	16	..	..	..
			8.4	589	12/14/31	29.3	..	8	108	0	8	1	44	10	
			13.6	622	1/14/32	28.5	0.04	..	108	0	..	..	..	7
			64	753	2/16/32	27.9	Tr.	..	108	0	..	..	..	..
			61	835	3/17/32	27.7	0.05	..	108	0	..	..	..	..
			60	905	4/15/32	36.3	0.08	7	156	0	10	1	43	7	
			44	987	5/10/32	24.0	0.05	..	137	0	..	..	..	..
			33	1047	6/17/32	25.3	0.02	..	143	0	..	..	..	..
			22	1165	7/15/32	26.6	0.07	..	149	0	..	..	..	..
			16.6	1280	8/15/32	27.2	0.07	..	156	0	..	..	..	..
			12.1	1393	9/19/32	27.6	0.02	9	155	0	10	Tr.	42	7	
S4562 E-21	Cucamonga Creek, 6 miles N. of Upland. Sampled at U. S. G. S. gaging station in NE 1/4 Sec. 7, T. 11 N., R. 6 W., S. B. & M. Discharge is from U. S. G. S. unpublished records.	2,550	17	837	3/17/32	26.6	0.06	12	156	2	14	0	39	10	
S18561-E-23	Day Creek, 6 miles N. of Eltwanda. Sampled at U. S. G. S. gaging station in SW 1/4 Sec. 8, T. 1 N., R. 6 W., S. B. & M., 0.25 mile below junction of two main forks. Discharge is from U. S. G. S. unpublished records.	2,900	4.6	836	3/17/32	25.0	0.02	12	149	2	7	0	41	8	
S19393 C-23	Lytle Creek, N. fork, NW of San Bernardino. Sampled one mile above Glenn Ranch. Discharge estimated when sampled.	3,500	6	(4)	3/12/30	38.0	Tr.	..	189	0	..	..	..	..
S19450 E-25	Lytle Creek, NW of San Bernardino. Sampled from creek at intake of Fontana power house canal, 1.25 miles NW of Cajon Creek Road on E. side of Lytle Creek Canyon Road. During spring of 1932 70 lbs. of CaSO ₄ per 24 hours was added to flow in power canal 500 feet below this station. Lab. No. 1307 was sampled at S18704 F-26, as a comparison to Lab. No. 1306 at this station.	2,220	..	1306	9/2/32	32.7	0.02	8	180	0	24	1	51	12	
S18704 F-26	Lytle Creek water, NW of San Bernardino. Sampled from tailrace at Fontana power house, 150 feet N.E. of Riverside Ave., 2.1 miles NW of Highland Ave. Discharge given as combined discharge of Lytle Creek and Fontana pipe line from W. S. P. No. 721 and U. S. G. S. unpublished records.	1,580	27	(c)	6/7/30	31.5	Tr.	..	173	3	124	1	50	..	
		17.5	103	7/3/31	31.6	..	..	16	177	0	21	Tr.	48	8
		15.1	289	8/12/31	35.0	0.12	..	11	180	2	21	Tr.	49	12	
		13.6	432	10/13/31	32.0	0.01	..	183	0	21	Tr.	49	13	9	
		14.6	463	11/9/31	32.1	0.02	..	180	0	..	..	..	12	6
		13.6	588	12/14/31	36.1	0.01	10	204	2	25	1	..	..	..
		15.2	625	1/14/32	31.8	0.02	..	180	2	..	..	..	..	..
		23	752	2/16/32	25.5	0.01	..	137	0	..	..	..	..	..
		92	827	3/15/32	26.6	0.01	..	143	4	..	..	..	..	..
		61	904	4/15/32	26.7	0.02	11	152	2	11	1	40	8	8	
		49	991	5/20/32	26.7	0.08	..	149	0	..	..	..	..	..
		38	1094	6/17/32	27.8	0.02	..	152	0	..	..	..	..	..
		36	1054	7/14/32	28.8	0.02	..	152	0	..	..	..	..	..
		36.4	1171	7/15/32	31.8	0.02	..	150	0	..	..	..	..	..
		30.3	1281	8/15/32	33.8	0.03	..	192	0	..	..	..	..	..
		44	1307	9/2/32	35.4	0.03	8	186	0	24	Tr.	57	11	7	
		40	1394	9/19/32	35.2	0.08	..	198	0	..	..	..	..	..
		..	1478	10/15/32	35.6	0.08	..	195	0	..	..	..	..	..
		..	1538	11/14/32	34.1	0.04	12	192	2	22	Tr.	55	11	11	
		..	1600	1/16/33	34.7	0.04	..	189	2	..	..	..	..	..
		1755	2/16/33	32.5	0.04	..	183	0	..	..	..	..	..	..
		10/19/32	78.8	0.11	9	354	14	149	2	110	36	..	e18	..	
S19438C	Lone Pine Creek near Keenbrook. Sampled 550 feet above U. S. G. S. gaging station and 200 feet below Lone Pine Road crossing, or 550 feet N. and 800 feet W. of the S. 1/4 corner, Sec. 12, T. 2 N., R. 6 W., S. B. & M. Rising water below San Andreas fault. Discharge from W. P. Rose.	2,642	0.02	(3)	..	..	..	..	..	..	..	..	..	..
S19433C-C-24	Lone Pine Creek, N. of Keenbrook. Sampled at U. S. G. S. gaging station 360 feet W. and 100 feet N. of S. 1/4 corner, Sec. 12, T. 2 N. 2 N., R. 6 W., S. B. & M. 50 feet above A. T. & S. F. Ry. bridge. Discharge from U. S. G. S. unpublished records.	2,600	0.9	829	3/17/32	74.4	0.02	12	326	7	145	4	100	36	24
		0.8	900	4/16/32	76.9	0.02	12	333	11	153	2	100	38	25	
		985	5/14/32	80.1	0.16	332	9
		0.44	1057	6/17/32	81.1	0.06	..	334	12
		0.36	1175	7/12/32	84.4	0.07	..	338	12
		0.39	1284	8/15/32	84.3	0.05	12	336	11	178	1	107	38	26	
		0.41	1404	9/17/32	84.1	0.14	12	336	11
		0.4	1489	10/12/32	83.1	0.10	..	332	9
		0.48	1553	11/16/32	82.1	0.08	..	329	9	168	2	104	38	24	
		0.5	1611	12/14/32	82.4	0.04	11	305	14	219	2	110	39	28	
		0.9	1694	1/17/33	79.1	0.05	..	320	7

TABLE 22. SURFACE WATERS ABOVE LOWER CANYON OF SANTA ANA RIVER—Continued

Number	Location and description	Elevation in molder	Discharge in second- feet	Labora- tory number	Date	Specific elec- trical conduc- tance ($K \times 10^4$ at $25^\circ C$)	Boron ppm	Per cent sodium $Na \times 100$ $Ca + Mg$ + Na	Constituents (parts per million)					
									Bicar- bonate radicle (HCO_3^-)	Chlo- ride radicle (Cl^-)	Sul- phate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca)	
S19433b-C-24	Mathis Creek (E. branch of Lone Pine Creek), S. of Cozy Dell, Sampled 200 feet below Old Cajon Highway, or 560 feet N. and 220 feet W. of the S. $\frac{1}{4}$ corner, Sec. 12, T. 2 N., R. 6 W., S. B. & M. Discharge from W. P. Rowe.	2,643	0.01	(^a)	11/16/32	74.6	0.06	18	348	15	120	10	98	28
S19442-C-24	Cajon Creek, S. of Cozy Dell. Sampled at Old Road crossing 500 feet E. of Cajon Highway, or 200 feet W. and 1,100 feet S. of the E. $\frac{1}{4}$ corner, Sec. 12, T. 2 N., R. 6 W., S. B. & M. Discharge from W. P. Rowe.	2,670	0.11 0.13	(^a) (^b)	10/19/32 11/16/32	67.9 67.2	0.12 0.08	27	357	22	54	Tr.	80	19
S19443-C-24	Cienega, S. of Cozy Dell. Sampled at foot of bluff below A. T. & S. F. Ry. at San Andreas fault, 300 feet S.E. of Cajon Highway, or 1,100 feet W. and 720 feet N. of SE. corner, Sec. 12, T. 2 N., R. 6 W., S. B. & M. Discharge from W. P. Rowe.	2,648	0.40	(^a)	10/19/32	98.5	0.06	7	369	12	254	2	140	48
S19433a-C-24	Cajon Creek, N. of Keenbrook. Sampled at U. S. G. S. gaging station, 340 feet E. and 200 feet N. of S. $\frac{1}{4}$ corner, Sec. 12, T. 2 N., R. 6 W., S. B. & M. Discharge from W. P. Rowe.	2,660	16	833	3/17/32	56.5	0.04	21	240	11	61	4	73	20
S19433b-E-27	Devil Canyon Creek, NW. of San Bernardino. Sampled at U. S. G. S. gaging station in NE. $\frac{1}{4}$, Sec. 6, T. 1 N., R. 4 W., S. B. & M. Discharge from U. S. G. S. unpublished records.	1,950	1.1	832	9/17/32	77.9	0.04	16	324	11	144	2	95	33
S18820-E-28	Waterman Canyon Creek, N. of San Bernardino. Sampled at U. S. G. S. gaging station in SW. $\frac{1}{4}$, Sec. 2, T. 1 N., R. 4 W., S. B. & M. 600 feet above old toll house and 1 mile N.W. of Arrowhead Springs. Discharge from U. S. G. S. unpublished records and W. S. P. No. 706.	2,150	1.2	(^a) (^b) 6.1	3/12/30 3/14/30 830	34.0	Tr. 27.4 0.02	31	171	9	20	---	39	6
S18822-E-28	Waterman Canyon Creek. Sampled at diversion weir 400 feet E. of Arrowhead Highway, 850 feet S. of P. E. Ry., crossing 750 feet S. of N. $\frac{1}{4}$ corner, Sec. 14, T. 1 N., R. 4 W., S. B. & M. Discharge on 1/9/29 estimated by U. S. D. A. Other discharges estimated by U. S. G. S.	1,650	1	(^a) 212 621 621 834 992 1172 1395 0.33 0.58	1/9/29 8/12/31 12/14/31 1/14/32 3/17/32 7/17/32 9/13/32 11/15/32 1/17/33	54.4 59.6 51.5 0.45 34.8 60.1 107 131 115.5 54.3	0.55 0.55 0.45 0.14 0.14 0.65 1.73 2.16 1.30 0.45	146 49 51 168 125 125 134 114 133 42	36 33 23 23 128 128 116 114 133 152	203 91 116 116 125 125 116 114 114 110	40 38 0 1 30 33 38 36 37 110	14 12 0 1 30 30 10 10 10 12		
S18841-E-28	Strawberry Creek, N. of San Bernardino. Sampled just above junction with Twin Creek in NW. $\frac{1}{4}$, Sec. 12, T. 1 N., R. 4 W., S. B. & M. and E. of Arrowhead Springs. Discharge estimated by U. S. D. A. at time of sampling.	1,950	3	(^a)	3/14/30	22.5	0.04	29	125	7	9	---	24	6
S18831-E-28	Strawberry Creek, S. of Arrowhead Springs. Sampled at U. S. G. S. gaging station in SE. $\frac{1}{4}$, Sec. 11, T. 1 N., R. 4 W., S. B. & M., at Bell Ross Water Co. diversion dam. Discharge from U. S. G. S. unpublished records.	1,700	7	828	3/15/32	35.9	0.29	50	128	16	59	0	26	8
S18905-F-29	City Creek, NE. of Highland. Sampled from head of City Creek Water Co. canal, 600 feet E. of City Creek Road, 4,600 feet N. of Highland Ave. in NW. $\frac{1}{4}$, Sec. 2, T. 1 N., R. 3 W., S. B. & M. Discharge given is combined discharge of canal and City Creek, from W. S. P. No. 721 and U. S. G. S. unpublished records.	1,600	0.7	(^a) 221 5.3 5.3 8.7 491 5.86 10.6 9.8 7.5 3.1 1.1 1.1 0.5 0.95 1.5 1754	Oct. 10/18 8/12/31 11/9/31 12/14/31 60.1 750 826 901 4/15/32 11/73 12/82 8/17/32 1398 1480 1552 1692 2/13/33	30.9 0.08 0.05 0.04 27.7 13.3 16.8 0.04 16.4 0.06 0.04 0.10 29.1 0.06 25.3 0.10 0.05 31 131 26.3 12.8 0.04	28 27 156 122 107 64 85 82 82 110 140 5 128 98 17.8	10 7 13 13 6 6 6 4 5 5 12 0 0 0 0 0	19 22 0 0 34 11 11 0 0 22 6 6 7 7 17	9 0 0 0 34 11 11 0 0 22 6 6 7 7 17				

TABLE 22. SURFACE WATERS ABOVE LOWER CANYON OF SANTA ANA RIVER—Continued

Number	Location and description	Location number	Elevation of ground	Discharge in second-foot	Laboratory number	Date	Specific electrical conductivity ($K \times 10^4$ at $25^\circ C$)	Constituents (parts per million)								
								Boron ppm	Per cent Na x 100 $Ca + Mg$ + Na	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca)	Magnesium (Mg)			
S18958-G-30	Plunge Creek, NE. of East Highlands. Sampled at U. S. G. S. gauging station in NE $\frac{1}{4}$, Sec. 1, T. 1 S., R. 3 W., S. B., B. & M., at mouth of canyon at crossing of North Fork ditch. Discharge from U. S. G. S. unpublished records.	S18958	1,650	15	825	3/16/32	13.1	0.02	31	64	5	0	15	5	12	
S18994-G-31	Santa Ana River, NE. of Redlands. Sampled at head of North Fork Ditch and Redlands Canal, on S side of Santa Ana Canyon Road at mouth of canyon. Discharge given is combined discharge of Southern California Edison Co., Ltd., power plant tailrace and Green spot pipe line, from W. S. P. Nos. 706, 721, and U. S. G. S. unpublished records.	S18994	1,900	52	(e)	6/9/30	...	Tr.	...	98	3	17	Tr.	21	7	
S18994-G-32	Redlands Tunnel, NE. of Redlands. Sampled from tunnel ditch 300 feet S. along Redlands Canal crosses concrete weir on N. side of Mill Creek Road (Luzonita Ave., extended) at Zanja Ditch. U. S. G. S. analyses were sampled at their gauging station in NE $\frac{1}{4}$, Sec. 13, T. 1 S., R. 2 W., S. B., B. & M., at mouth of canyon, below bridge on Mill Creek Road. Discharge given is combined discharge of Mill Creek and Mill Creek power canals Nos. 1, 2 and 3, from W. S. P. Nos. 706, 721, and U. S. G. S. unpublished records.	S18994A	1,875	...	1420	9/22/32	37.9	0.06	38	140	5	57	1	33	8	
S18994-G-31	Mill Creek, NE. of Redlands. Sampled from concrete weir on N. side of Mill Creek Road (Luzonita Ave., extended) at Zanja Ditch. U. S. G. S. analyses were sampled at their gauging station in NE $\frac{1}{4}$, Sec. 13, T. 1 S., R. 2 W., S. B., B. & M., at mouth of canyon, below bridge on Mill Creek Road. Discharge given is combined discharge of Mill Creek and Mill Creek power canals Nos. 1, 2 and 3, from W. S. P. Nos. 706, 721, and U. S. G. S. unpublished records.	S18994A	1,875	...	100	7/3/31	34.9	...	14	177	...	35	1	50	11	
S18994-H-32	Redlands Tunnel, NE. of Redlands. Sampled from tunnel ditch 300 feet S. along Redlands Canal crosses concrete weir on N. side of Mill Creek Road (Luzonita Ave., extended) at Zanja Ditch. U. S. G. S. analyses were sampled at their gauging station in NE $\frac{1}{4}$, Sec. 13, T. 1 S., R. 2 W., S. B., B. & M., at mouth of canyon, below bridge on Mill Creek Road. Discharge given is combined discharge of Mill Creek and Mill Creek power canals Nos. 1, 2 and 3, from W. S. P. Nos. 706, 721, and U. S. G. S. unpublished records.	S18994A	1,875	...	1420	9/22/32	37.9	0.06	38	140	5	57	1	33	8	
S18322-H-32	Mill Creek, NE. of Redlands. Sampled from concrete weir on N. side of Mill Creek Road (Luzonita Ave., extended) at Zanja Ditch. U. S. G. S. analyses were sampled at their gauging station in NE $\frac{1}{4}$, Sec. 13, T. 1 S., R. 2 W., S. B., B. & M., at mouth of canyon, below bridge on Mill Creek Road. Discharge given is combined discharge of Mill Creek and Mill Creek power canals Nos. 1, 2 and 3, from W. S. P. Nos. 706, 721, and U. S. G. S. unpublished records.	S18322	2,450	37	(e)	6/18/30	...	Tr.	...	*111	2	*18	Tr.	32	7	
S18003-H-28	Santa Ana River, E. of Colton. Sampled at E St. (Colton Av.) bridge.	S18003	970	6	1	100	7/3/31	34.9	...	14	177	...	35	1	50	11
S18118-1-30	San Timoteo Creek, $2\frac{1}{2}$ miles S. of Bedlands. Sampled at NE $\frac{1}{4}$, Sec. 10, T. 2 S., R. 3 W., S. B., B. & M. Discharge from U. S. G. S. unpublished records.	S18118	1,440	0	06	623	1/13/32	68.3	0.02	34	333	34	33	79	28	
S18003-H-28	Santa Ana River, E. of Colton. Sampled at E St. (Colton Av.) bridge.	S18003	970	...	...	748	2/15/32	82.3	0.10	34	330	33	130	6	74
			0.8	0.8	831	3/18/32	77.8	0.08	37	327	38	327	30	62		
			0.6	0.6	1688	1/16/33	65.1	0.05	37	320	34	170	15	37		
			1750	1750	2/13/33	77.5	0.12	37	327	30	47	2	20	20		
					(f)	5.15/19	...	34	320	33	170	15	32	0	37	
					(f)	June, 1919	...	34	320	33	170	15	32	0	37	
					(f)	Aug., 1919	...	34	320	33	170	15	32	0	37	
					(f)	Oct., 1919	...	34	320	33	170	15	32	0	37	
					(f)	12/2/19	...	34	320	33	170	15	32	0	37	
					(f)	Jan., 1920	...	34	320	33	170	15	32	0	37	
					(f)	2/1/33	...	34	320	33	170	15	32	0	37	
						1711	2/1/33	34.6	0.06	34	320	33	170	15	37	

TABLE 22. SURFACE WATERS ABOVE LOWER CANYON OF SANTA ANA RIVER—Continued

TABLE 22. SURFACE WATERS ABOVE LOWER CANYON OF SANTA ANA RIVER—Continued

Number	Location and description	Location number	Eleva- tion of ground	Discharge in second- feet	Labora- tory number	Date	Specific elec- tri- cal conduc- tance ($K \times 10^6$ at 25°C)	Per cent sodium Na x 100 $\frac{Ca + Mg}{Na}$	Constituents (parts per million)									
									Boron ppm	Bicar- bonate radicle (HCO_3^-)	Chlo- ride radicle (Cl ⁻)	Sul- phate radicle (SO ₄ ²⁻)	Nitrate radicle (NO ₃ ⁻)	Calci- um (Ca)	Magni- esium (Mg)	Sodium (Na)		
S17022-J-26	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	11/19/28	44.6	0.19	0.98	52	19.8	14	40	43	.....	54
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	6/28/30	51.2	0.12	0.98	32	21.4	25	35	54	12	39
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	8/12/30	51.2	0.12	0.98	28	21.7	25	35	54	11	32
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	9/3/30	51.1	0.10	0.98	17	22.6	18	47	58	17	36
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	10/1/30	47.9	0.07	0.97	29	20.7	21	63	55	12	36
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	11/1/30	44.3	0.37	0.97	26	20.1	21	37	51	11	28
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	12/1/30	48.9	0.11	0.98	21	19.5	16	47	55	11	23
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	1/7/31	49.0	0.09	0.98	18	18.9	14	47	54	12	18
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	1/30/31	46.9	0.14	0.98	19	19.5	16	51	55	12	21
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	3/2/31	48.8	0.12	0.98	19	18.9	12	59	56	12	20
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	4/1/31	49.6	0.03	0.98	35	19.2	10	47	53	10	43
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	5/1/31	46.3	0.11	0.98	29	20.4	18	44	52	10	31
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	6/2/31	46.6	0.07	0.98	26	18.6	20	33	51	10	28
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	7/1/31	50.3	0.09	0.98	19	20.4	21	11	58	11	21
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	8/1/31	53.0	0.12	0.98	31	23.8	27	41	10	56	13
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	9/2/31	50.9	0.14	0.98	30	20.1	25	48	56	10	36
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	10/3/31	48.5	0.16	0.98	34	19.5	30	36	49	11	29
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	11/5/31	42.8	0.13	0.98	27	18.3	20	31	48	9	27
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	12/2/31	49.3	0.14	0.98	28	19.6	25	49	14	56	11
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	1/30/32	49.7	0.12	0.98	25	18.6	23	55	16	57	12
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	4/5/32	48.0	0.18	0.98	22	19.8	21	43	14	57	13
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	4/30/32	51.1	0.28	0.98	17	20.7	21	31	19	57	15
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	6/1/32	48.3	0.16	0.98	24	20.4	16	50	56	12	27
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	7/2/32	55.8	0.16	0.98	30	22.3	36	57	14	63	14
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	8/2/32	59.0	0.09	0.98	23	22.9	39	45	18	66	16
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	9/2/32	58.0	0.10	0.98	24	22.3	37	49	18	70	13
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	10/7/32	49.6	0.21	0.98	25	20.1	27	40	13	54	12
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	11/2/32	48.0	0.14	0.98	27	21.7	38	52	13	58	13
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	12/1/32	46.6	0.15	0.98	26	19.5	22	44	13	54	12
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	1/17/33	53.6	0.14	.....	23	20.4	17	37	3	43	10
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	1/17/33	53.6	0.14	.....	189	25.6	24	46	0	56	16
S17022	Riverside Water Co. canal. Riverside. Sampled at 14th St. crossing. Use: Irrigation. Samples taken prior to 4/5/32 were from 8th St. crossing.	880	.....	.....	(d)	1/17/33	53.6	0.14	.....	21	20.4	26	Tr.	67	15	50
S17965-H-27	Santa Ana River, S. of Colton. Sampled at La Cadena Ave. bridge.	895	.....	.....	(e)	3/5/49	.....	.....	.....	34	20.4	17	37	3	43	10
S17965	Santa Ana River, W. of Riverside. Sampled 200 feet W. of E. abutment, and 100 feet N. of Rubidoux Bridge. Discharge estimated by D. W. R. at time of sampling.	690	33	33	(e)	7/10/30	.....	0.02	.....	313	12	88	.....	.....	.....	.....
S17965	Santa Ana River, NW of Riverside. Sampled at U. S. G. S. gaging station in Riverside Narrows 3,000 feet downstream from U. P. R. R. Bridge. D. W. R. Lab. No. 779 was sampled on S. side, No. 780 as a composite across stream, and No. 781 on N. side of river. U. S. D. A. analysis on 3/9/32 is duplicate of D. W. R. Lab. No. 780 from same sample. Discharge from W. S. P. Nos. 706, 721 and U. S. G. S. unpublished records.	690	33	33	(e)	11/12/30	.....	0.08	.....	310	12	85	.....	.....	.....	.....
S17965	Santa Ana River, NW of Riverside. Sampled at U. S. G. S. gaging station in Riverside Narrows 3,000 feet downstream from U. P. R. R. Bridge. D. W. R. Lab. No. 779 was sampled on S. side, No. 780 as a composite across stream, and No. 781 on N. side of river. U. S. D. A. analysis on 3/9/32 is duplicate of D. W. R. Lab. No. 780 from same sample. Discharge from W. S. P. Nos. 706, 721 and U. S. G. S. unpublished records.	690	30	30	(e)	9/15/31	83.7	0.15	0.98	33	30.6	35	47	11	83	21	66	
S17965	Santa Ana River, NW of Riverside. Sampled at U. S. G. S. gaging station in Riverside Narrows 3,000 feet downstream from U. P. R. R. Bridge. D. W. R. Lab. No. 779 was sampled on S. side, No. 780 as a composite across stream, and No. 781 on N. side of river. U. S. D. A. analysis on 3/9/32 is duplicate of D. W. R. Lab. No. 780 from same sample. Discharge from W. S. P. Nos. 706, 721 and U. S. G. S. unpublished records.	690	31	31	(e)	10/13/31	79.6	0.15	0.98	34	30.8	34	41	6	83	18	67	
S17965	Santa Ana River, NW of Riverside. Sampled at U. S. G. S. gaging station in Riverside Narrows 3,000 feet downstream from U. P. R. R. Bridge. D. W. R. Lab. No. 779 was sampled on S. side, No. 780 as a composite across stream, and No. 781 on N. side of river. U. S. D. A. analysis on 3/9/32 is duplicate of D. W. R. Lab. No. 780 from same sample. Discharge from W. S. P. Nos. 706, 721 and U. S. G. S. unpublished records.	690	32	32	(e)	11/9/31	81.1	0.09	0.98	32	25.9	62	53	6	76	17	56	
S17965	Santa Ana River, NW of Riverside. Sampled at U. S. G. S. gaging station in Riverside Narrows 3,000 feet downstream from U. P. R. R. Bridge. D. W. R. Lab. No. 779 was sampled on S. side, No. 780 as a composite across stream, and No. 781 on N. side of river. U. S. D. A. analysis on 3/9/32 is duplicate of D. W. R. Lab. No. 780 from same sample. Discharge from W. S. P. Nos. 706, 721 and U. S. G. S. unpublished records.	690	33	33	(e)	12/15/31	65.7	0.13	0.98	32	25.9	59	77	
S17965	Santa Ana River, NW of Riverside. Sampled at U. S. G. S. gaging station in Riverside Narrows 3,000 feet downstream from U. P. R. R. Bridge. D. W. R. Lab. No. 779 was sampled on S. side, No. 780 as a composite across stream, and No. 781 on N. side of river. U. S. D. A. analysis on 3/9/32 is duplicate of D. W. R. Lab. No. 780 from same sample. Discharge from W. S. P. Nos. 706, 721 and U. S. G. S. unpublished records.	690	34	34	(e)	1/15/32	67.0	0.13	0.98	32	30.2	84	52	8	86	*18	70	
S17965	Santa Ana River, NW of Riverside. Sampled at U. S. G. S. gaging station in Riverside Narrows 3,000 feet downstream from U. P. R. R. Bridge. D. W. R. Lab. No. 779 was sampled on S. side, No. 780 as a composite across stream, and No. 781 on N. side of river. U. S. D. A. analysis on 3/9/32 is duplicate of D. W. R. Lab. No. 780 from same sample. Discharge from W. S. P. Nos. 706, 721 and U. S. G. S. unpublished records.	690	35	35	(e)	2/15/32	80.8	0.13	0.98	32	30.5	84	52	8	86	*18	70	
S17965	Santa Ana River, NW of Riverside. Sampled at U. S. G. S. gaging station in Riverside Narrows 3,000 feet downstream from U. P. R. R. Bridge. D. W. R. Lab. No. 779 was sampled on S. side, No. 780 as a composite across stream, and No. 781 on N. side of river. U. S. D. A. analysis on 3/9/32 is duplicate of D. W. R. Lab. No. 780 from same sample. Discharge from W. S. P. Nos. 706, 721 and U. S. G. S. unpublished records.	690	36	36	(e)	3/15/32	81.1	0.16	0.98	32	30.5	84	52	8	86	*18	70	
S17965	Santa Ana River, NW of Riverside. Sampled at U. S. G. S. gaging station in Riverside Narrows 3,000 feet downstream from U. P. R. R. Bridge. D. W. R. Lab. No. 779 was sampled on S. side, No. 780 as a composite across stream, and No. 781 on N. side of river. U. S. D. A. analysis on 3/9/32 is duplicate of D. W. R. Lab. No. 780 from same sample. Discharge from W. S. P. Nos. 706, 721 and U. S. G. S. unpublished records.	690	37	37	(e)	4/15/32	83.8	0.12	0.98	30	30.8	80	87	47	10	84	19	69
S16854-J-23	Santa Ana River, N. of Norco. Sampled at end of Tyler St., 4,000 feet downstream from Peiley Bridge.	575	37	37	(e)	10/13/32	92.3	0.16	284	87	71	
S16854	Santa Ana River, N. of Norco. Sampled at Hanner Ave. bridge. Discharge from U. S. G. S. unpublished records.	565	31	35	(e)	9/13/31	83	0.14	39	256	83	65	73	14	71	71	
S16854	Santa Ana River, N. of Norco. Sampled at Hanner Ave. bridge. Discharge from U. S. G. S. unpublished records.	565	73	73	(e)	10/13/31	81.4	0.14	26	217	64	50	70	15	38	38	
S16854	Santa Ana River, N. of Norco. Sampled at Hanner Ave. bridge. Discharge from U. S. G. S. unpublished records.	565	36	1004	(e)	11/28/31	69.0	0.14	26	241	92	233	90	70	15	38	
S16854	Santa Ana River, N. of Norco. Sampled at Hanner Ave. bridge. Discharge from U. S. G. S. unpublished records.	565	36	1006	(e)	10/15/32	77.0	0.18	26	238	90	43	73	14	71	71	
S16854	Santa Ana River, N. of Norco. Sampled at Hanner Ave. bridge. Discharge from U. S. G. S. unpublished records.	565	37	1377	(e)	9/15/32	71.9	0.18	41	214	91	58	73	14	71	71	

TABLE 22. SURFACE WATERS ABOVE LOWER CANYON OF SANTA ANA RIVER—Continued

Number	Location and description	Location number	Elevation of ground	Discharge in second-feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^{-4}$ at 25°C)	Constituents (parts per million)							
								Boron ppm	Percent sodium Na $\times 100$ ($\frac{Ca+Mg}{Na+K} \times 100$)	Bicarbonate radicle (HCO_3^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Chloride radicle (Cl^-)	Calcium (Ca)	Magnesium (Mg)	Sodium ($Na$)
S16835-K-22	Santa Ana River, N. of Norco. Sampled 0.5 mile downstream from Hammer Ave. bridge. Lab. No. 782 is a composite sample across the stream. No. 783 was from the N. side, and No. 784 from the S. side of the river. Discharge given from measurement at time and point of sampling by U. S. G. S. unpublished miscellaneous record.	S16835	555	65	782 (*) 783 784	3/9/32 3/9/32 3/9/32	81.0 77.5 79.4	0.11 0.14 0.11	32 31 31	250 238 238	58 68 68	168 50 41	5 68 15	76 68 17	51
S16807-K-22	Santa Ana River, NW. of Corona. Sampled at U. S. G. S. gauging station 600 feet upstream from Aulundale Road bridge (River Road). Bailey No. 3710C. Lab. Nos. 745, 1007, and 1,350 were sampled from S. side of river; Lab. Nos. 1008 and 1378 were sampled as composite across stream; Lab. Nos. 787, 1009, 1375, and U. S. G. S. analysis on 7/10/30 were sampled from N. side of river. Discharge given from W. S. P. Nos. 706, 721, and U. S. G. S. unpublished records and miscellaneous records.	S16807	520	40	740 (*) 9/13/31	72	0.07	32	250 238 238	58 68 68	168 50 41	5 68 15	76 68 17	51	
S16798-K-22	Santa Ana River, NW. of Corona. Sampled 1.5 miles downstream from Aulundale Road bridge (River Road), at O. C. F. C. D. gauging station. Bailey No. 3715C.	S16798	490	56	1008 (*) 10/13/31	71	0.14	31	250 238 238	58 68 68	168 50 41	5 68 15	76 68 17	51	
S16789-K-21	Santa Ana River, NW. of Corona. Sampled at O. C. F. C. D. gauging station 129 at weir in Lillbridge ditch, 2,200 feet NE. of Yorba St., extended from point on Yorba St. 3,300 feet NW. of A. T. & S. Ry. Bailey No. 3716B. The Lillbridge pump delivers water from Santa Ana River above A. T. & S. Ry. bridge and below Aulundale bridge.	S16789	500	.....	1009 (*) 10/13/31	60.3 60.3 60.3	0.13 0.13 0.13	33 34 34	250 220 220	58 57 57	168 50 54	5 60 15	76 68 49	51
S16779B-K-21	Santa Ana River, NW. of Corona. Sampled 300 feet upstream from intersection of Yorba St. extended. Bailey No. 3716H. Sample on 9/13/31 was taken from E. side of river. Sample on 11/28/31 is a composite sample across stream.	S16779B	480	.....	1009 (*) 11/28/31	68.2 68.2 70	0.16 0.16 0.14	28 28 31	250 238 238	58 67 67	168 50 42	5 68 14	76 68 59	51
S16779-K-21	Santa Ana River, N. of Prado. Sampled at U. S. G. S. recorder stilling well No. E-4, on S. edge of stream, 500 feet downstream from intersection of Yorba St. extended.	S16779	477	.....	1009 (*) 11/28/31	69.1 69.1 70	0.13 0.13 0.13	31	250 238 238	58 67 67	168 50 42	5 68 15	76 68 59	51
S16156-M-27	Cajalco Creek, S. of Riverside. Sampled from creek 900 feet S. of center of Sec. 7, T. 4 S., R. 4 W., S. B. & M. In Cajalco Canyon.	S16156	1,543	-	1384 (*) 9/15/32	71.0 71.0 70	0.13 0.13 0.13	31	250 238 238	58 67 67	168 50 42	5 68 15	76 68 59	51	
S14904-O-24	Cold Water Creek, SE. of Corona. Sampled at Temescal Water Co. diversion channel at road culvert at Glen Ivy Inn. Tributary to Temescal Creek.	S14904	1,300	-	1384 (*) 9/15/32	356	0.16	50	314 232 232	81.9 80 80	390 390 390	0 0 0	124 124 124	26 26 26	
S15602-L-23	Temescal Creek, E. of Corona. Sampled at S. side of 6th St. bridge, Lab. No. 720 taken from stream on E. side of channel, which was mostly Corona city storm drainage. Discharge estimated at time of sampling by D. W. R.	S15602	620	0.02 0.05	720 2/15/32	45.4 97.3	0.02 0.06	50	314 232 232	81.9 80 80	390 390 390	0 0 0	198 198 198	102 102 102	
S16779A-K-21	Santa Ana River, NW. of Corona. Sampled from left or L. bank 300 feet below Temescal (very active channel), 1,600 feet SW. of Yorba St. from point 3,600 feet NW. of A. T. & S. Ry. Bailey No. 3716L.	S16779A	475	-	1009 (*) 10/13/31	115	-	36	302 228 228	144 91 71	302 228 228	5 5 5	96 71 71	25 20 20	
S15860-L-21	Santa Ana River, NW. of Corona. Sampled from N. side of Rincon bridge (Prado Road crossing) over river 1,000 feet NW. of Santa Ana Canyon State Highway. Bailey No. 3720D.	S15860	460	.....	1009 (*) 11/28/31	88	-	27	214 53 53	87 66 53	302 228 228	5 5 5	71 71 71	40 40 40
S1652-J-19	Chino Creek Tributary, SW. of Chino. Sampled beside Carlson Canyon Road, 1.7 miles SW. of Pipe Line Road.	S1652	700	.....	796 3/10/32	217	0.24	43	552 220	485 220	485 220	0 0	129 100	255

TABLE 22. SURFACE WATERS ABOVE LOWER CANYON OF SANTA ANA RIVER - Continued

Number	Location and description	Location number	Elevation of ground	Discharge in second-feet	Laboratory number	Date	Constituents (parts per million)										
							Specific electrical conductivity ($K \times 10^{-3}$ at 25°C)	Boron ppm	Percent sodium	Per cent sodium Na $\times 100$ Ca + Mg / Ca + Na	Bicarbonate radicle (HCO_3^-)	Chloride radicle (Cl $^-$)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
S16777-K-21	Reynolds Slough on Mill Creek, tributary to Chino Creek, W. of Norco. Sampled at dam at S., and of Chino Gurn Club duck lake, 3,100 feet S. of McCarty Ave., 3,000 feet E. of Serrano Road.	S16777	510	...	(*)	9/23/31 10/5/31 11/24/31	58 55 69	...	29	329	28	35	...	64	21	-	-
S15850-L-21	Chino Creek, NW. of Prado. Sampled at U. S. G. S. gauging station, 100 feet downstream from Prado Road bridge. Discharge from U. S. G. S. unpublished records.	S15850	460	22	732	3/9/32 4/20/32 5/19/32 6/16/32 7/14/32 8/15/32 9/15/32 10/13/32 12/20/32 1/17/33 2/25/33	98.6 87.6 97.5 93.2 90.1 66.1 64.5 65.0 86.7 71.6 85.8	0.09 0.18 0.17 0.12 0.06 0.06 0.08 0.13 0.10 0.10 0.06	24 351 357 396 28 31 308 31 28 36	232 177 177 306 34 302 302 302 332 137	6 6 6 34 34 302 36 36 28 28	122 114 114 114 114 114 114 114 114 114 114	34 29 29 29 29 29 29 29 29 29 29	-	-	-	-
S15851-L-21	Santa Ana River, SW. of Prado. Sampled at U. S. G. S. gauging station, 1,350 feet downstream from A. T. & S. F. Ry. bridge, or 450 feet N. of Santa Ana Canyon State Highway near River Bank Camp. Bailey No. 37240N. Lab. Nos. 1388, 1011 and 1387 were sampled from S. side of river; Lab. Nos. 789, 1012 and 1386 were sampled as composite across stream. Lab. Nos. 790, 1013 and 1385 were sampled from N. side of river. Discharge from W. S. P. No. 721 and U. S. G. S. unpublished records.	S15851	450	64	67	9/13/31 10/10/31 10/13/31 11/28/31	96 89 90.6 67	...	37 32	277 259	101 99	75 69	...	84 86	17 18	77 62	
S15852-L-20	Santa Ana River, SW. of Prado. Sampled at Riverside-Orange County line in lower Santa Ana Canyon, 3 miles below Kitson bridge at Green River Camp. Lab. Nos. 733, 1014 and 1391 were sampled from S. bank of river. Lab. Nos. 794, 1015 and 1390 were sampled as composite across river. Lab. Nos. 705, 1016 and 1389 were sampled from N. bank of river. U. S. D. A. analysis on 9/15/31 is duplicate of D. W. R. Lab. No. 299.	S15852	410	370	(*)	3/2/40 3/3/40 3/12/40	...	...	23	a250 a256	50	52 50	9 0	69 66	20 18	35 37
			395	120	(*)	May 19/19 May 19/19 May 19/19	...	...	25	a244 a244	69	60 67	9 10	73 71	16 10	60 59
			410	370	(*)	6/8/40 6/8/40 6/10/40 6/11/40 6/12/40	...	...	34	a230 a230 a235 a235 a234	80	71 12 15 22	4 2 2 2	93 75 75 75	27 37 37 37	63 67
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 9 9 9 9 9 9 9 6 6	80 71 64 65 65 65 65 65 74 74	...	...
			410	370	(*)	10/8/30 11/12/30 9/15/31 9/15/31 9/15/31 10/13/31 10/13/31 10/13/31 12/14/31 12/14/31	...	...	34	a247 a247 a247 a247 a247 a247 a247 a247 a247 a247	103	74 271 262 271 262 271 271 271 107 105	10 			

TABLE 22. SURFACE WATERS ABOVE LOWER CANYON OF SANTA ANA RIVER—Continued

Number	Location and description	Elevation of ground	Discharge in second-foot	Laboratory number	Date	Specific electrical conductivity ($K_x 10^{-4}$ at 25°C)	Boron ppm	Constituents (parts per million)							
								Per cent sodium	$Na \times 100$	$\frac{Ca + Mg}{Na + Na}$	Bicarbonate radicle (HCO_3^-)	Chloride radicle (Cl^-)			
S15812	Anaheim Water Co., canal intake in lower Santa Ana Canyon. Sampled at intake from the N. side of Santa Ana River, 1.1 mile downstream from Riverside-Orange County line. O. C. F. C. D. gaging station 124. Occasional measurements only. Use Irrigation.	395	(9)	(9)	Oct. 1918	—	—	39	243	87	72	6	62	19	66
S15812-L 20					Oct. 1918	—	—	38	238	81	76	3	70	19	78
					3/13/19	—	—	43	180	63	70	5	58	12	68
					7/14/19	—	—	42	236	89	78	18	63	18	80
					Oct. 1919	—	—	41	222	87	75	16	62	17	73
					3/ 8/20	—	—	—	—	—	—	—	—	—	—
					4/15/20	—	—	—	—	—	—	—	—	—	—
					6/17/20	—	—	—	—	—	—	—	—	—	—
					8/21/20	—	—	—	—	—	—	—	—	—	—
					10/29/20	—	—	—	—	—	—	—	—	—	—
					12/19/20	—	—	—	—	—	—	—	—	—	—
					1/13/30	—	—	—	—	—	—	—	—	—	—
					2/14/30	—	—	—	—	—	—	—	—	—	—
					3/ 5/30	—	—	—	—	—	—	—	—	—	—
					4/15/30	—	—	—	—	—	—	—	—	—	—
					26	6/ 6/31	82.9	—	—	—	—	—	—	—	—
345								38	253	96	72	2	73	21	75
S15762	Santa Ana Valley Irrigation Co., canal intake in lower Santa Ana Canyon. Sampled at intake from the S. side of Santa Ana River, 4.2 miles down stream from Riverside-Orange County Line. O. C. F. C. D. gaging station 123. Occasional measurements only. Use Irrigation.							—	—	—	—	—	—	—	—
S15762-1-19								28	6/ 6/31	83.4	—	—	—	—	—
								80	6/19/31	81.4	—	—	—	—	—
								135	7/15/31	84.9	—	—	—	—	—
								226	8/13/31	80.4	—	—	—	—	—
								300	9/15/31	86.8	0.12	36	248	4	74

Δ includes small equivalent quantity of carbonate (CO_3^{2-})

The total equivalent quantity of calcium sulphate (Ca_2SO_4) determined by turbidity method:

"Alkaline" bases estimated by difference between sum of acid radicles and sum of Calcino and Magnesio in milligram equivalents and calculated to equivalent quantity of Sodium.

*American Society of Agricultural Engineers
and Analysis by United States Department of Agriculture, Rehdix Laboratory, Riverside, California.*

1 Analysis by University of California, Graduate School of Tropical
1 and San Joaquin River Basin, California

Analysis by Edward S. Babcock and Sons, Riversdale, California.

County of Riverside.

Analyses by Edvald B. Babcock and Donald J. Johnson, Association Laboratory, Anaheim, California.

TABLE 23. SEWAGE EFFLUENT—SOUTHERN COASTAL BASIN

TABLE 23. SEWAGE EFFLUENT—SOUTH COASTAL BASIN—Continued

Number	Location and description	Average discharge in second	Laboratory number	Date	Time of day	Specific electrical conductivity ($K \times 10^{-10} \text{ ohm}^{-1}$ at 25°C)	Boron ppm	Percent sodium $\text{Na} \times 100$ ($\text{Ca} + \text{Mg}$ + Na)	Constituents (parts per million)						
									Chloride radicle (Cl ⁻)	Bicarbonate radicle (HCO_3^-)	Sulphate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Magnesium (Mg)	Sodium (Na)	
R15921-L-22	City of Corona Sewage Disposal Plant, N. of Corona; 900 feet above sea level; A.T. & S.P. Ry., 750 feet NW of Cota St., N. of Temescal Wash, W. of Powder Hill. Method of treatment: Inhoff tank, spiraling filters and sand beds. Lab. No. 1638. Sampled from sewage before entering filter beds and Lab. No. 1639 was from settled sewage. Effluent discharged into gravel beds on N. side of Temescal Creek Wash. Discharge estimated by City Engineer on the basis that the quantity of sewage equals the municipal water consumption.	0.8	1638 1639	12/30/32 12/30/32	Noon Noon	102 128	0.80 1.31	21 59	302 543	67 75	95 65	18 0	10 ^a 26	13 26	40 69
R16982-J-25	City of Riverside Sewage Disposal Farm, W. of Riverside; 4,200 feet east along Sewer Farm Road, which is $1\frac{1}{2}$ miles SW. along Riverside Drive from Mission Blvd. Method of treatment: Settling in earthen basins and land disposal. Used for irrigation on sewer farms and surplus disposed of on the land. Discharge estimated by City Engineer.	3.6	1719	2/3/33	4:00 p.m.	88.2	2.80	56	378	77	29	0	26	69	111
R18002-H-27	City of San Bernardino Sewage Treatment Plant, S. of San Bernardino; 925 feet W. of E St., 2,400 feet N. of Cotton Ave. Sampled at effluent weir on final settling tank. Method of treatment: Prechlorination, Inhoff tanks, sprinkling filters and final clarifier. Effluent chlorinated. Discharged into Warm Creek and diverted by Riverside Water Co. canal. Discharge obtained from City Engineer.	4.7	(e) (e) (e) (e) (e) (e) (e) 1716	2/28/29 3/6/29 3/13/29 1/3/30 1/4/30 9/30/30 1/7/31 638 1640 1716	2/28/29 3/6/29 3/13/29 1/3/30 1/4/30 9/30/30 1/7/31 1/15/32 12/30/32 2/3/33	64.3 58.7 72.8 70.7 66.2 55.6 71.1 0.16 70.7 0.23 71.6 0.33 81.7 0.26 81.7 0.26	0.16 0.09 0.21 0.21 0.30 0.15 0.16 0.16 0.23 0.23 0.26 0.26 0.26 0.26 0.26	47 40 42 42 40 56 47 47 40 40 38 38 241 73 73	262 226 265 100 195 253 256 256 140 140 36 36 22 37 37	48 48 64 64 69 101 101 101 60 60 59 59 241 73 73	37 28 67 67 35 49 49 49 37 37 36 36 22 14 14	54 53 56 56 51 51 51 51 51 51 59 59 51 59 12	8 10 13 13 11 52 52 54 10 10 13 13 13 16 16	b70 b53 b64 b54 b104 b72	
R18090-G-29	City of Redlands Sewage Disposal Plant, NW. of Redlands; 0.5 mile S. of City Creek Road (3d St.), 700 feet E. of Palm Ave. Sampled from settled sewage. Method of treatment: Inhoff tanks, followed by disposal on sand beds. Effluent discharged into sand beds on N. side of Santa Ana River Wash. Discharge obtained from City Engineer.	1.2	1717 1718	2/1/33 2/3/33	2:30 p.m. 2:00 p.m.	99.7 91.5	4.76 10.64	35 38	418 418	87 88	20 20	0 0	44 40	13 12	17 78

^a Includes small equivalent quantity of Carbonate (CO_3^{2-}).^b Alkaline bases estimated by difference of sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.^c Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.^d Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.

R3894-F-8, LOS ANGELES SEWAGE RECLAMATION PLANT

Owner—City of Los Angeles. Location and description—In Griffith Park, one mile W. of Riverside Drive over Los Angeles River, 350 feet S. of W. levee of Los Angeles River, S. of Burbank. Ground elevation—475, from U.S.G.S. topog. Source of information—R. F. Gouday, Sanitary Engineer, Department of Water and Power, Los Angeles, California. Location number—R3894.

Constituents expressed in parts per million according to United States Public Health Association Standards	Average from May 12, 1930 to Feb. 1, 1933	Averages for		Maximum day	Minimum day
		Maximum month	Minimum month		
Alkalinity as CaCO_3	240	281	133	664	101
Chloride.....	85	162	65	221	46
Sulphate.....	125	163	71	210	53
Nitrates.....	3.0	12.3	0	42.0	0
Calcium (10 analyses).....	86	.....	.....	.....	.....
Magnesium (10 analyses).....	30	55	11	40	5
Color.....	33	9	3	50	5
Turbidity.....	7	0	0	88	0
Suspended solids.....	15	25	9	8.8	0.9
Disolved Oxygen.....	4.25	6.1	2.8	19.8	0.9
B.O.D. (5 day).....	3.7	11.1	1.1	10.8	0.1
Oxygen consumed.....	10.0	16.9	4.3	25.8	2.1
pH	7.15	7.5	6.9	7.6	6.6

Method of treatment: Preliminary clarification, treatment by activated sludge process, final chlorination, one-third of water filtered and final sand beds.

Remarks: The plant has a capacity of 200,000 g.p.d. and the effluent is disposed of by spreading beds of natural sand adjacent to the river and $1\frac{1}{2}$ miles above sea level in infiltration galleries.

The above table gives the result of some 25,000 analyses, all of which are of samples composited usually during a 24-hour period, with the exception of values given for calcium and magnesium, which are an average determined from two samples.

TABLE 24. INDUSTRIAL WASTE WATERS—SOUTH COASTAL BASIN

Number	Location and description	Elevation of ground	Discharge in second-foot	Laboratory number	Date	Specific electrical conductivity (K x 10 ³ at 25°C)	Boron ppm	Per cent sodium Na x 100 Ca + Mg + Na	(Constituents (parts per million))				
									Chloride radicle (Cl ⁻)	Sulfate radicle (SO ₄ ²⁻)	Nitrate radicle (NO ₃ ⁻)	Calcium (Ca)	Magnesium (Mg)
W835 M-9	Union Oil Co. of California. Waste water outlet, N. of Wilmington. Sampled from outlet discharging into Niguer Slough, 1.02 miles N. of Carson St., 0.21 mile W. of Avalon Blvd., 100 feet N. of W-835A M-9. Waste water from oil refinery.	W835	10	(a)	3/ 5/32 9/13/32	—	—	—	90	148 13,440	58 90	—	296 147
W835A-M-9	Shell Oil Co. of California. Waste water outlet, N. of Wilmington. Sampled from outlet discharging into Niguer Slough, 1.0 mile N. of Carson St., 0.20 mile W. of Avalon Blvd., 100 feet S. of W835 M-9. Waste water from oil refinery.	W835A	10	(b)	3/ 5/32 9/14/32	—	—	—	92	24 360	807 501	—	—
W869-N-10	Shell Oil Co. of California. Waste water flame, N. of Wilmington. Sampled from flume discharging into Niguer Slough, 250 feet N. of Willow St., 250 feet W. of Alameda St., 50 feet W. of P. E. Ry. Waste water from oil refinery.	W869	20	(c)	3/ 5/32	—	—	—	90	506	8,330	96	285 139
W879-N-10	Associated Oil Co. Waste water outlet, N. of Wilmington. Sampled from outlet discharging into E. side of the Los Angeles River, 60 feet S. of Alameda St., 150 feet S. of Willow St. Waste water from oil refinery.	W879	15	(d)	4/12/32	—	—	—	66	183	29	2	—
W912-L-10	Richfield Oil Co. Waste water outlet, SE. of Compton. Sampled from 10-inch pipe discharging into E. side of the Los Angeles River, 60 feet S. of Artesia St. Waste water from oil refinery.	W912	55	(e)	4/20/32 3/11/32 3/23/32 9/ 1/32	—	—	—	82 73 89	156 188 162	440 82 380	—	51 40 27 28
W1353-J-7	Pan California Oil Co., Robert Bromberg, Receiver, Inglewood; 165 feet S. of Regent Street, 453 feet W. of Prairie St. Oil well waste water.	W1353	150	(f)	12/5	5,330	51.2	—	5554	19,347	—	—	—
W1364-J-8	Whitire Anne Oil Co., storage tank, Inglewood. Sampled from bleeder on storage tank for oil well waste water, 905 feet S. of Manchester St., 1,665 feet W. of 12th Ave.	W1364	190	(g)	8/30/32	5,125	60.0	—	637	18,105	—	—	—
W1514-J-10	Los Angeles Chemical Co. Waste water outlet, Southgate at SW. corner of Salt Lake and Cedella Aves. Waste water from plant.	W1514	122	(h)	6/29/32	—	—	—	—	—	—	—	—
W1514A-J-10	A. R. Maas Chemical Co. Waste water outlet, Southgate at SW. corner of Salt Lake and Ardine Aves. Waste water from plant.	W1514A	117	(i)	6/29/32	—	—	—	—	—	—	—	—
W1524-J-11	Rio Grande Oil Co. Waste water outlet, E. of Southgate Springs. Sampled from outlet discharging into the E. side of the Los Angeles River, 600 feet S. of the S. P. R. R. Waste water from oil refinery.	W1524	102	(j)	10/26/32	—	—	—	43	225	40	34	—
W1636-K-13	George F. Getty Co. Waste water sump. SE. of Santa Fe Springs. Sampled from sump hole at intersection of Lakewood Read and A. T. & S. F. Ry. main line. Oil well waste water from Santa Fe Springs oil field.	W1636	155	(k)	9/ 5/32	942	9.40	94	369	2,920	32	0	55 26
W1829-L-16	The Petroleum Co. Dehydrator, SE. of Brea. Sampled from bleeder on dehydrator, 500 foot S. of Golden Ave., 1,640 feet W. of Brea Vista St. Waste water from all producing oil wells on owner's field.	W1829	300	(l)	9/ 1/32	1,838	8.96	—	—	2,378 5,103	—	—	—
W1857-K-17	Chasior Canfield Midway Oil Co., Gathering Tank, Olinda. Sampled from bleeder from gathering tank, 1,500 feet W. and 200 feet N. of E 1/2 corner, Sec. 8, T 3 S., R 9 W., S. B. & M. 300 feet N. of Carbon Canyon Road. Waste water from all producing oil wells on owner's field.	W1857	520	(m)	9/ 1/32	1,786	16.2	—	543	5,547	—	—	—
W2778-L-10	General Petroleum Corp. of California. Waste water outlet, Vernon. Sampled from five 3-inch to 8-inch drains discharging into the W. side of the Los Angeles River W. of Soto St. bridge. Waste water from plant.	W2778	205	(n)	6/15/32 12/17/32	—	—	—	93 83	1,522 618	105 48	—	29 24 7 14
W2778A-I-10	Actelison, Topeka & Santa Fe Ry. Waste water outlet, Los Angeles. Sampled from 6-inch pipe discharging into the W. side of the Los Angeles River, 100 feet N. of U. P. R. R., 350 feet N. of Washington (23d) St. Waste water.	W2778A	220	(o)	6/15/32 12/17/32	—	—	—	97 96	215 152	224 270	378 327	7 8 2 3

TABLE 24. INDUSTRIAL WASTE WATERS—SOUTH COASTAL BASIN—Continued

Number	Location and description	Location number	Waste tion of ground	Discharge in second- feet	Labora- tory number	Date	Specific electro- conduc- tance ($K \times 10^8$ at 25 °C)	Boron ppm	Per cent sodium Na x 100 $Ca + Mg$ + Na	Constituents (parts per million)						
										Sul- phate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calci- um (Ca)				
W2789-B-I-10	Musto-Keenman Co. Waste water outlet, Los Angeles. Sampled from outlet discharging into the E. side of the Los Angeles River, 1 block S. of Washington (23d) St. Waste water from plant.	W2789B	215	.....	(e)	12/17/32	.....	.....	30	339	308	105	-	142	55	5112
W2789-I-10	Stauffer Chemical Co. Waste water outlet, Vernon. Sampled from 20-inch clay pipe discharging into the NE. side of the Los Angeles River, 0.25 mile E. of Footh St. Waste water from plant.	W2789	190	.....	(d)	6/15/32	.....	.....	59	356	58	438	-	107	19	e223
W2789A-I-10	Stauffer Chemical Co. Waste water sump, Vernon. Sampled from stump which discharges into the N. side of the Los Angeles River, 0.4 mile W. of Downey Road, 600 feet N. of river. Waste water from Pacific Hard Rubber Co. and West Coast Kalsomine Co. plants.	W2789A	190	.....	(d)	6/15/32	.....	.....	94	976	850	4404	-	201	50	e1,630 e641
W2789B-I-10	Fibreboard Products Co. Waste water outlet, Vernon. Sampled from outlet discharging into the SW. side of the Los Angeles River, 600 feet E. of Soho St. Waste water from plant.	W2789B	200	.....	(d)	6/15/32	.....	.....	44	196	37	236	32	74	15	e97 e75
W2799-I-10	Filtral Co. Waste water sump, Vernon. Sampled from sump 0.2 miles W. of Downey Road, 200 feet N. of Los Angeles River. Waste water from plant.	W2799	185	.....	(d)	6/15/32	.....	.....	43	236	32	137	.....	63	15	e1,424
W2952-H-13	Pacific R. & H. Chemical Co. Waste water sump, El Monte. Sampled from sump discharging into the E. side of the Rio Hondo, 600 feet S. of the P. E. Ry. Waste water from plant.	W2952	270	.....	(d)	6/27/32	.....	.....	62	.....	0	10,287	596	506	101	.....
W13202-Q-14	The Texas Co., Brown lease, Huntington Beach. Waste water from oil wells being wasted in tank number 4117-T. T. 10. P.D.—1,175. 300 feet S. of Quincy St. and 300 feet E. of Delaware Ave.	W13202	35	-	(f)	10/19/31	4,685	63.4	1,613	17,661	-	334	150	.....	.....
W15604-M-16	Waste Water Disposal Co. Outlet sump, E. of Fullerton. Sampled from sump, 200 feet S. of Orange Grove Ave., 060 feet W. of Cypress Ave. Waste water is collected at outlet sump from Richfield, Olinda, Brea Canyon, and East Coyote oil fields. Sump waters are treated periodically by a small amount of caustic soda. Discharge varies from 200,000 to 400,000, averaging 280,000 gallons per day (0.43 second feet) and is disposed of in the Orange County Cities Joint Outfall Sewer System at the corner of Euclid and Orange-thorpe Avenues, June, 1927, analysis is a weighted average of all districts contributing water to the outlet sump.	W15604	190	.....	(f)	June, 1927	.....	.....	98	836	4,841	72	130	84	\$3,191 \$3,536	
W15652-L-17	Chanslor Capfield Midway Oil Co., Dehydrater, Atwood. Sampled from bleeder on dehydrater, 650 feet E. of Linda Vista Av., 250 feet S. of Pine Street. Waste water from all producing oil wells of owner.	W15652	260	.....	1294	9/ 1/32	1,333	29.2	.....	351	4,127	.....	.....	.....	.....

^a Includes small equivalent quantity of Carbonate (CO_3^{2-}).^b Sulphate (SO_4^{2-}) determined by turbidity method.^c Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.^d Analysis by City of Long Beach Engineering Laboratory.^e Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.^f Analysis by Union Oil Co. of California.^g Analysis by Waste Water Disposal Co., Fullerton, California.

TABLE 25. PACIFIC OCEAN WATER ANALYSIS

Constituents (parts per million)												
Laboratory number	Date	Specific electrical conductance ($K \times 10^3$ at 25°C)	Boron ppm	Per cent sodium	Bicarbonate + Magnesium (Mg + Na)	Chloride radicle (Cl ⁻)	Sulfate radicle (SO ₄ ²⁻)	Nitrate radicle (NO ₃ ⁻)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	
HUNTINGTON BEACH. Sampled from Municipal Pier												
LONG BEACH. Sampled from Pine Ave. Pier												
BL SURGUNDO. Sampled from Standard Oil Co. Pier												
HOLLYWOOD BEACH. Sampled opposite Ocean Drive and Ornand Road intersection												
VENTURA. Sampled opposite State Highway underpass at S. P. R. R., W. of Ventura												
(C) 1/1/29 5.040	1/17/29	5.042 6	-	79	a133	19.614	2.508	0	414	1.259	10.773	
(e) 9/3/30	-	-	-	78	241	18.550	2.455	-	410	1.269	b10.313	
(d) April 1928	-	-	-	78	132	19.004	2.755	-	433	1.351	b11.047	
(e) 6/26/31	-	-	4.52	78	135	18.824	2.657	-	471	1.256	b10.918	
(C) 1/1/29	1/17/29	1.92	1.86	82	134	18.852	2.363	428	427	b10.906		
(e) 3/1/29	-	2.83	1.50	-	-	-	-	-	-	-		
(e) 3/16/29	-	-	2.76	-	-	-	-	-	-	-		
(C) 3/28/29	-	-	1.31	-	-	-	-	-	-	-		
(C) 4/2/29	-	-	3.00	-	-	-	-	-	-	-		
(C) 5/7/29	-	-	2.23	79	146	19.174	2.650	-	433	1.265	b10.870	
(C) 5/18/29	-	-	3.36	-	-	-	-	-	-	-		
(e) 6/4/29	-	-	3.44	79	143	19.061	2.663	-	420	1.149	b10.784	
(e) 6/11/29	-	-	3.43	79	152	18.784	2.582	-	430	b10.615		
(e) 7/2/29	-	-	4.34	79	146	19.136	2.637	-	432	b10.860		
(e) 7/30/29	-	-	4.30	79	155	19.078	2.697	-	429	b10.798		
(e) 8/27/29	-	-	4.04	70	152	18.313	2.456	-	425	b10.319		
(e) 6/14/30	-	-	3.73	70	146	18.929	2.650	-	444	b10.597		
SANTA BARBARA. Sample from Municipal Pier				3.80	79	140	19.065	2.602	-	432	1.253	b10.796
(e) 2/19/30	-	-	-	-	-	-	-	-	-	-	-	

^a Includes small equivalent quantity of Carbonate (CO₃²⁻).^b Alkalinity haloes estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.^c Analysis by City of Long Beach Engineering Laboratory.^d Analysis by S. R. Mitchell, Consulting Chemist, Los Angeles.^e Analysis by United States Department of Agriculture, Rubidoux Laboratory, Riverside, California.

TABLE 26. SPRINGS, LAKES, AND SUBSOIL WATERS ABOVE LOWER CANYON OF THE SANTA ANA RIVER

Number	Location and description	Location number	Elevation of ground	Discharge in seconds-feet	Laboratory number	Date	Specific electrical conductivity ($K \times 10^6$ at 25°C)	Boron ppm	Per cent sodium $(Na \times 100 / (Ca + Na))$	Constituents (parts per million)					
										Boronate radicle (HCO_3^-)	Chloride radicle (Cl^-)	Sulfate radicle (SO_4^{2-})	Nitrate radicle (NO_3^-)	Calcium (Ca)	Magnesium (Mg)	Sodium ($Na$)
SPRINGS AND LAKES															
S13852-Q-26	Lake Elsinore. Elsinore. Sampled from N.E. side of lake at Aloha Beach Club pier. Natural lake.	S13852	1,245	.....	(e)	8/23/25	342	3.0	94	439	721	148	.....	39	(e) 1,659 1,656
S16124-M-26	R. H. Raphael Realty Co., Mockingbird Spring. S. of Arlington; 550 feet E. and 1,770 feet S. of N ^{1/4} corner of Sec. 2, T.4 S., R.5 W., S. B., B. & M. In upper end of Mockingbird Canyon. Use: Irrigation.	S16124	1,410	.....	(e)	11/4/25	354	1.44	99	555	612	172	.....	2	(e) 1,499 1,497
S16136-M-26	A. D. Randall, spring. S. of Riverside; 650 feet W. of S.E. corner and on S. line of Sec. 11, T.4 S., R.5 W., S. B., B. & M. In Cajalco Canyon. Use: Domestic and irrigation.	S16136	1,550	.....	(e)	11/14/31	661	2.73	96	1,356	258	0	11	2	27 1,604 1,233
S16138-N-26	Henry J. Smith, Gavilan Spring. S. of Riverside. On S. line and 600 feet E. of the SW. corner of Sec. 13, T.4 S., R.5 W., S. B., B. & M. In Cajalco Canyon. Use: Irrigation.	S16138	1,900	.....	(e)	3/6/32	78.5	0.15	49	1,412	1,526	276	0	2	25
S16147-M-26	Henry J. Smith, Arlington Tunnel. S. of Riverside; tunnel 2,600 feet long, 7 x 7 opening and practically in solid rock. First 150 feet from mouth is timbered. General direction S. 1,000 feet, then SE. Caved in at 1,800 feet. Mouth is 700 feet W. and 200 feet S. of the center of Sec. 13, T.4 S., R.5 W., S. B., B. & M. In Cajalco Canyon. Use: Irrigation.	S16147	1,600	.....	(e)	12/23/49	.....	.....	22	207	60	41	.....	60	20 130
S16156A-M-27	Spring. S. of Riverside. Sampled from seepage on S. bank of Cajalco Creek, 900 feet S. of the center of Sec. 7, T.4 S., R.4 W., S. B., B. & M. In Cajalco Canyon.	S16156A	1,545	.....	(e)	4/3/33	403	0.17	51	421	914	426	1	214	117 453
S16157-M-27	Spring. S. of Riverside. Sampled from spring on Mosgrove and Winsor property in SW ^{1/4} of NW ^{1/4} , Sec. 18, T.4 S., R.4 W., S. B., B. & M. In Cajalco Canyon.	S16157	1,600	.....	(e)	4/3/33	33.6	0.09	46	137	346	38	4	80	30 196 75
S16178-M-27	Spring. S. of Riverside. Sampled from one of several springs on E. side of Cajalco Canyon, S. of Winsor and Mosgrove Ranch house, about middle of S. line of SW ^{1/4} , Sec. 17, T.4 S., R.4 W., S. B., B. & M.	S16178	1,900	.....	(e)	4/3/33	63.5	0.14	22	274	166	84	Tr.	104	45 45
S16837-K-22	Lake Noro. SW. of Noro. Sampled at S. end of lake. Bailey No. 3712A.	S16837	640	.....	(e)	11/24/31	83	.....	62	149	135	51	.....	33	17 197
S16934-J-24	W. J. Hole, reservoir. N. of Arlington; 800 feet W. of Pedley Road, on S. side of Jurupa Ave., extended. Stored water for irrigation.	S16934	720	.....	(e)	1/19/20	.....	.....	52	292	226	90	2	89	23 6,155
S16933-J-25	Water Cress Spring. Riverside. On Santa Ana River, S. bank, at N. projection of Streetcar Ave.	S16933	720	.....	.....	8/19/20	4/7/32	86.6	0.17	39	278	105	32	14	82 16 81
S17054-J-27	C. W. Benedict, spring. S. of Riverside. On E. side of and near bottom of Tequesquite Arroyo, 0.4 mile NE. of Woodcrest Road, 200 feet NW. of Benedict Ave. Use: Domestic.	S17054	960	.....	.....	9/38	5/14/32	116	0.18	25	204	211	78	39	97 52 63
S17093-J-27	J. F. Porch, mountain spring. E. of Riverside; in NE ^{1/4} of NW ^{1/4} of SE ^{1/4} of Sec. 28, T.2 S., R.4 W., S. B., B. & M. Use: Irrigation.	S17093	1,700	.....	(e)	Feb., 1929	.....	.....	107	50	.....	.....	.....	.....	.....
S17094-J-27	Spring on bottom of canyon S.E. of Riverside, 0.75 mile N. of A.T. & S. Ry. crossing on Peris Highway near Box Springs. Arrowhead Springs Hotel. Arrowhead steam caves. Arrowhead Springs, 10 Waterman Canyon, 600 feet E. of Arrowhead Highway, 1,100 feet N. of road to hotel, or 500 feet W. and 900 feet N. of center of Sec. 11, T.1 N., R.4 W., S. B., B. & M. Use: Steam baths. Discharge estimated by U. S. D. A. at time of sampling.	S17094	1,460	.....	.....	9/33	5/12/32	47.4	0.08	44	82	75	12	18	26 15 46
S18821-E-28	Arrowhead Springs Hotel, Palm Spring. Arrowhead Springs, 50 feet N. and 40 feet E. of the W ^{1/4} corner, Sec. 12, T.1 N., R.4 W., S. B., B. & M. N.E. of hotel. Spring formerly natural, now hole bored to 115 feet, with no casing below 13 feet, to increase supply. Discharge estimated by U. S. D. A. at time of sampling.	S18821	1,900	0.02	(e)	3/12/30	125	2.06	79	104	51	419	.....	39 32	6 7 303
S18830-E-28	Arrowhead Springs Hotel, Palm Spring. Arrowhead Springs, 50 feet N. and 40 feet E. of the W ^{1/4} corner, Sec. 12, T.1 N., R.4 W., S. B., B. & M. N.E. of hotel. Spring formerly natural, now hole bored to 115 feet, with no casing below 13 feet, to increase supply. Discharge estimated by U. S. D. A. at time of sampling.	S18830	2,050	0.07	(e)	3/12/30	140	2.35	85	92	66	452	.....	35	2 1,249

TABLE 26. SPRINGS, LAKES, AND SUBSOIL WATERS ABOVE LOWER CANYON OF THE SANTA ANA RIVER—Continued

Number	Location and description	Elevation of ground	Discharge in second-feet	Laboratory number	Date	Constituents (parts per million)							
						Specific electrical conductivity ($K \times 10^4$ at $25^\circ C$)	Boron ppm	Per cent sodium Na x 100 ppm $(Ca + Mg + Na)$	Sulfate radicle (SO_4^-)	Nitrate radicle (NO_3^-)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)
SPRINGS AND LAKES—Continued													
S18831A-E-28	Arrowhead Springs Hotel, Perrycal Spring, Arrowhead Springs; 420 feet N. and 680 feet W. of the E 1/4 corner, Sec. 11, T.1 N., R.4 W., S. B. B. & M. NW. of hotel. Discharge estimated by U. S. D. A. at time of sampling.	1,950	0.02	(4)	3/12/30	149	2.64	87	82	73	.492	29	4
S18831B-E-28	Arrowhead Springs Hotel, Granite Spring, Arrowhead Springs; 1460 feet N. and 1,050 feet W. of the E 1/4 corner, Sec. 11, T.1 N., R.4 W., S. B. B. & M. NW. of hotel. Discharge estimated by U. S. D. A. at time of sampling.	1,900	0.06	(4)	3/12/30	152	2.64	88	79	69	.498	26	4
S18842-E-28	Lady Margaret Spring, Warm Spring, NE. of San Bernardino; 1,700 feet N. of 40th St. (Willow Nook Road), 600 feet W. of Mountain Ave., extended, 100 feet N. of swimming pool at Lady Sharp's house. Use: Swimming pool and irrigation. Water rises to bottom and sides of 6-foot deep hole.	1,560	-----	1424	9/22/32	36.0	0.44	60	125	16	37	1	21
S19027-G-32	Bath-Tub Spring, NE. of Redlands. N. of mouth of Warm Spring Canyon on E. side of Santa Ana River, near San Bernardino Baseline. Spring flows 0.1 miners inch at temperature of $60^\circ C$.	2,200	-----	(4)	4/12/31	128	0.42	78	43	11	.542	54	0
S19416-C-23	Miller Hot Spring, NW. of San Bernardino. In picnic ground N. of Lytle Creek Road, 500 feet above caretaker's house at Southern California Edison Co., Ltd., intake. Use: Domestic. Casing: 30-inch concrete well.	2,650	-----	(4)	9/24/32	53.1	0.80	87	98	28	.87	0	8
S19421-C-24	Flying W. Spring, W. of Cozy Dell; 200 feet S. of Lone Pine Canyon Road on San Andreas Fault, or 2,600 feet W. of the NE. corner, Sec. 11, T.2 N., R.6 W., S. B. B. & M. Discharge from W. P. Rose.	2,950	0.02	(4)	11/19/32	99.2	0.08	15	430	17	214	Tr.	121
S19432-C-24	Lost Lake, near Keenbrook. Sampled at W. landing on N. side of lake on center section line, 1,450 feet E. of W 1/4 corner, Sec. 12, T.2 N., R.6 W., S. B. B. & M. Elevation of water surface 2,750.4. Lake is formed by movement of water along San Andreas fault.	2,760	-----	(4)	10/19/32	94.1	0.11	10	357	12	239	Tr.	125
S19952-D-34	Big Bear Lake, N.E. of San Bernardino. Sampled near lower end of lake. Gage read 45 at time of sampling. Stored water for irrigation.	6,710	-----	(4)	3/28/31	24.5	0.01	12	137	Tr.	10	-----	26
SUBSOIL WATERS													
S15981-L-23	W. J. Hole, Arlington drain outlet, SW. of Arlington. Sampled at outlet of 24-inch concrete pipe, 100 feet N. of A. T. & S. F. Ry., 1 mile W. of Buchanan St. Use: Irrigation. Drains subsoil waters from vicinity of Arlington W. of Van Buren St. No. 3622F.	670	-----	1213	7/28/32	127	0.24	47	308	192	97	23	83
S16000-L-24	Tile drain standpipe, SW. of Arlington; 0.25 mile SW. of Pierce St., 785 feet NW. of Magnolia Ave. Standpipe is 15 feet S. of Twin Buttes Water Co., Plant 1. Use: Irrigation. Bailey No. 3622F.	690	-----	1449	10/4/32	10.6	0.22	48	317	224	91	14	138
S16325-K-22	Fuller Ranch, drainage ditch, W. of Noron. Sampled 0.2 mile E. of Harrison Ave., extended, 600 feet S. of Chandler St. Drainage flows into Santa Ana River.	580	-----	1498	10/31/32	17.4	0.26	39	262	151	83	13	160
S16908-K-24	Southern California Junior College, drain, NW. of Arlington. Sampled at Schuyler Ave., 400 feet northeasterly from Kaselback Ave.	-----	-----	1557	12/3/32	17.5	0.37	47	305	311	119	18	99
S16909-K-25	Orchard surface drainage, S. of Arlington; 600 feet NW. of Victoria Ave., 10 feet SW. of Gibson Street. Sample from discharge of 1.5-inch drain pipe.	880	-----	1630	1/3/33	14.7	0.27	46	329	247	108	22	50
				1748	2/7/33	15.8	0.30	-----	327	273	-----	96	191
				1788	2/23/33	64.5	0.02	25	302	38	29	5	45
				-----	Dec., 1930	-----	-----	-----	340	740	-----	100	138
				1696	1/30/33	21.3	0.12	24	64	16	11	Tr.	11
				1696	1/30/33	21.3	0.12	24	64	16	11	Tr.	11
												6	8

* Includes small equivalent quantity of Carbonate (CO_3^{2-}).

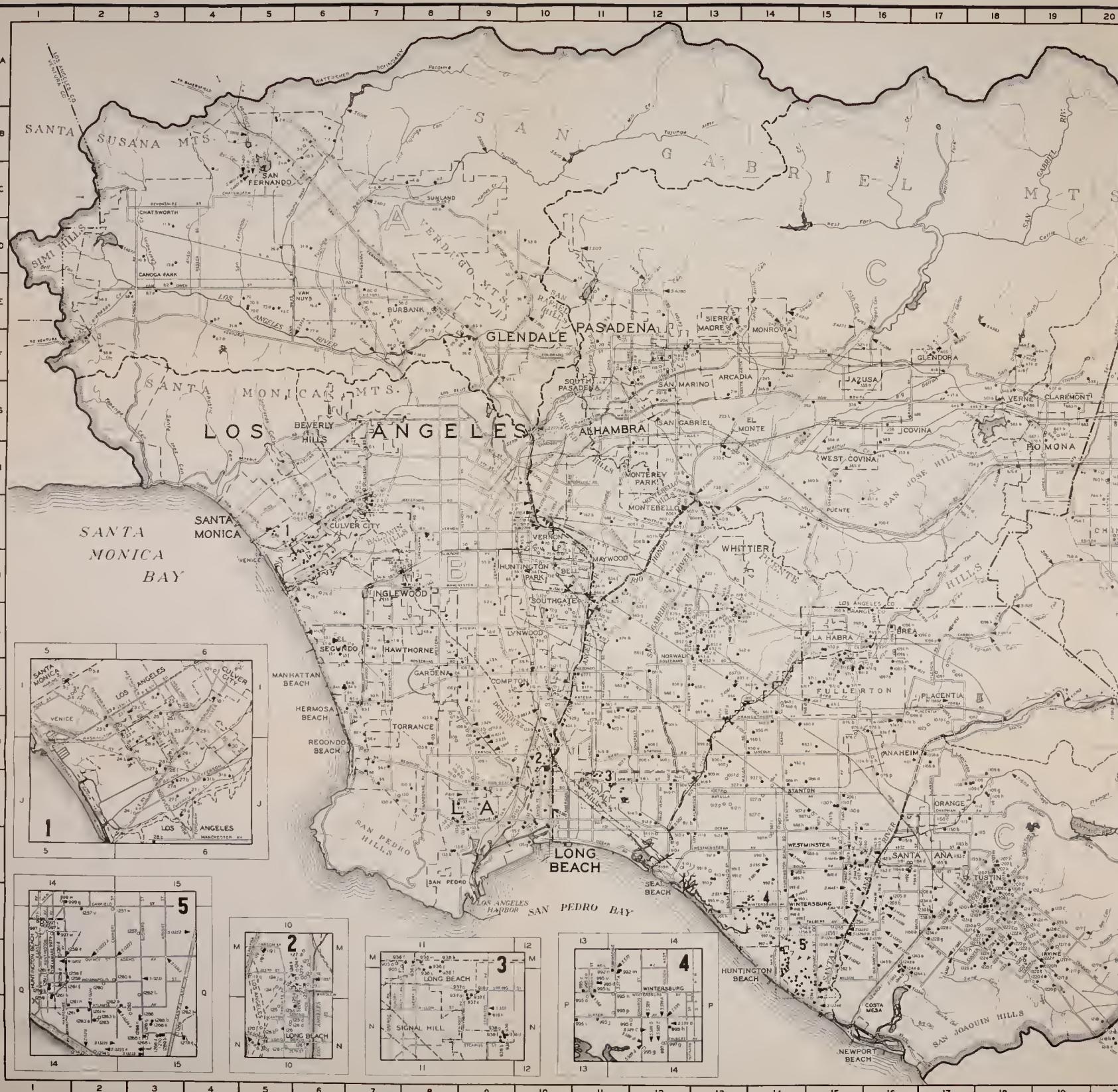
† Alkaline bases estimated by difference between sum of acid radicles and sum of Calcium and Magnesium in milligram equivalents and calculated to equivalent quantity of Sodium.

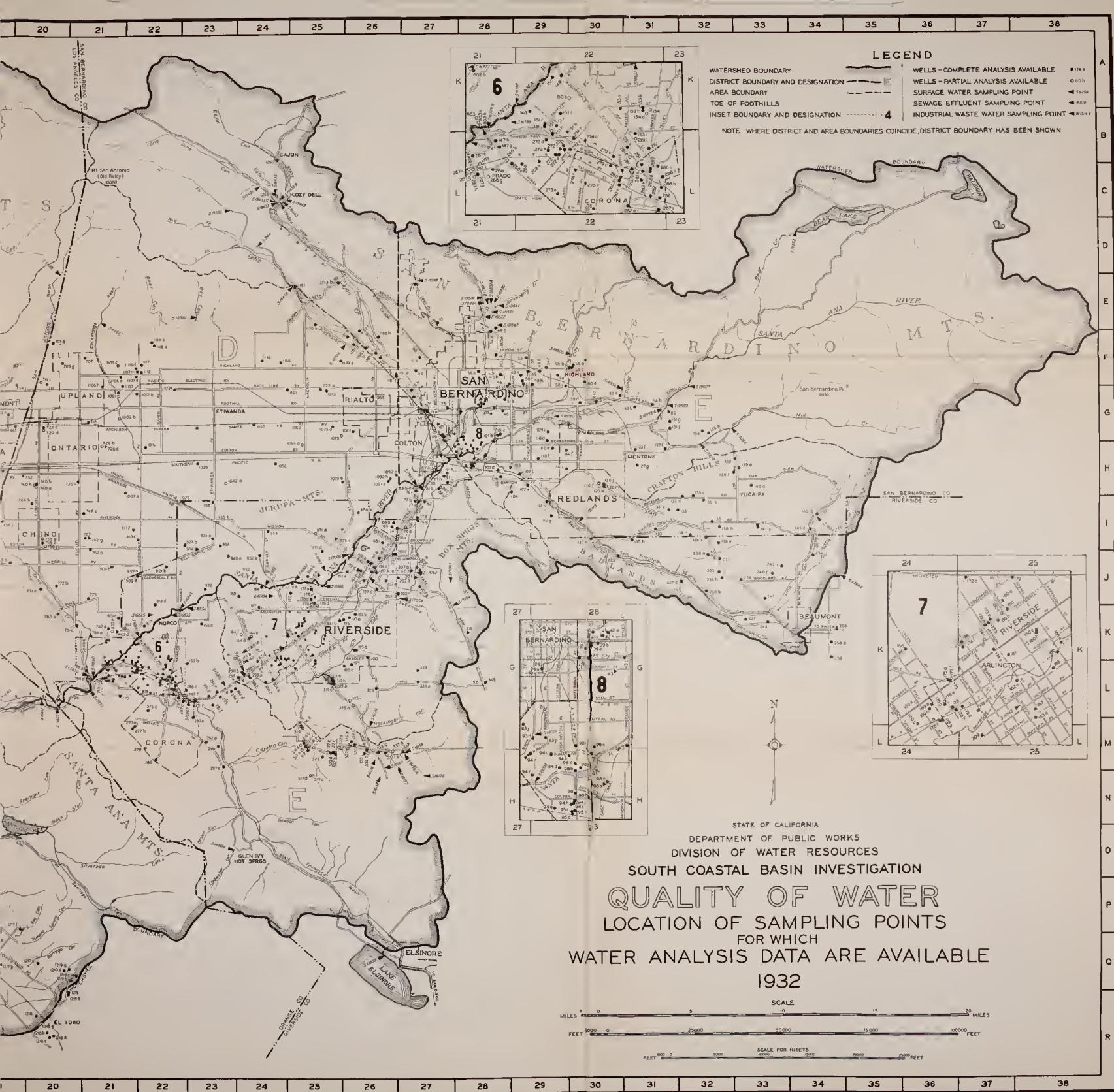
‡ Calcium and Magnesium determined together and calculated to equivalent quantity of Calcium.

§ Analysis by United States Department of Agriculture, Riverside Laboratory, Riverside, California.

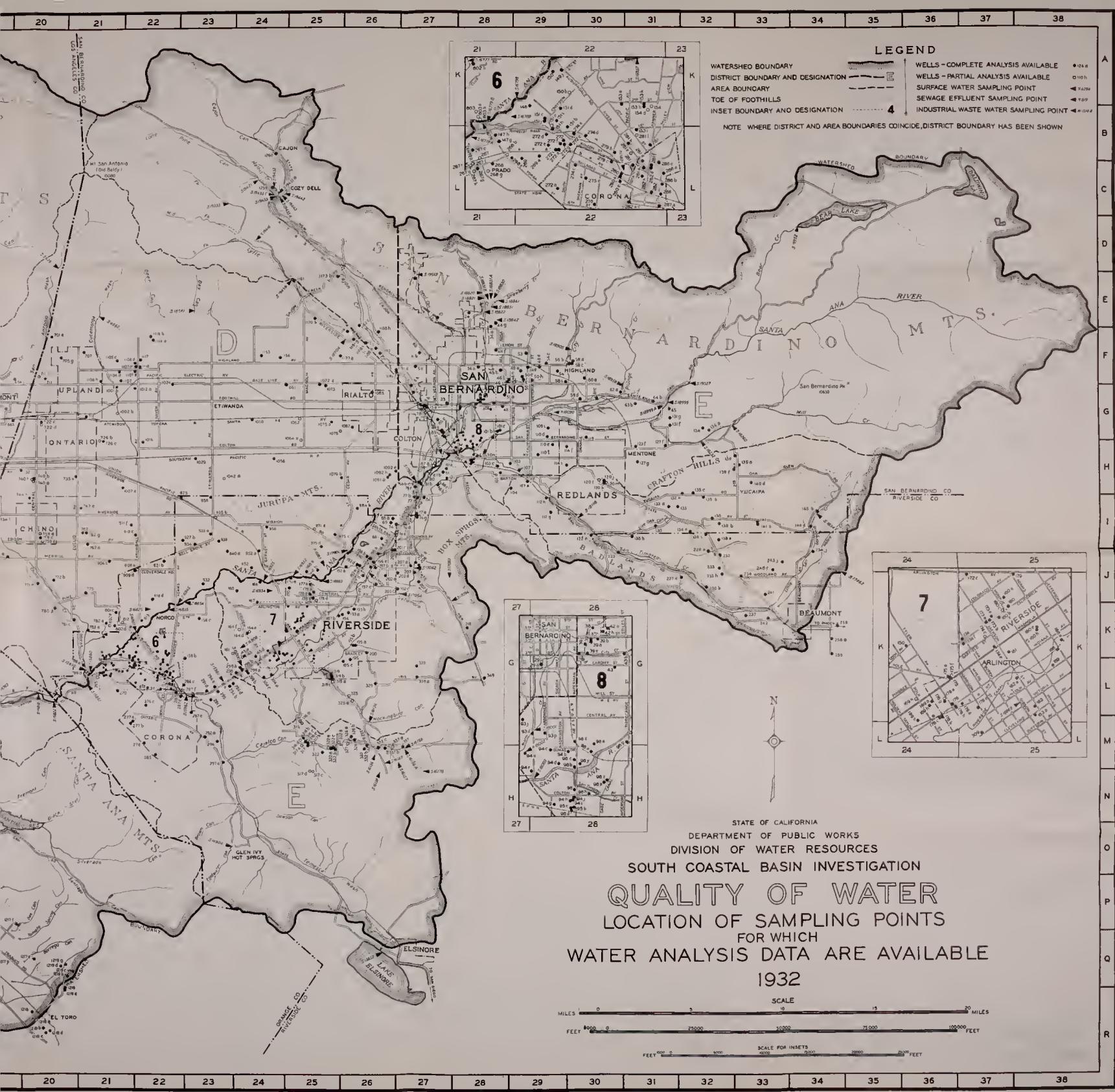
¶ Analysis by University of California, Graduate School of Tropical Agriculture and Citrus Experiment Station, Riverside, California.

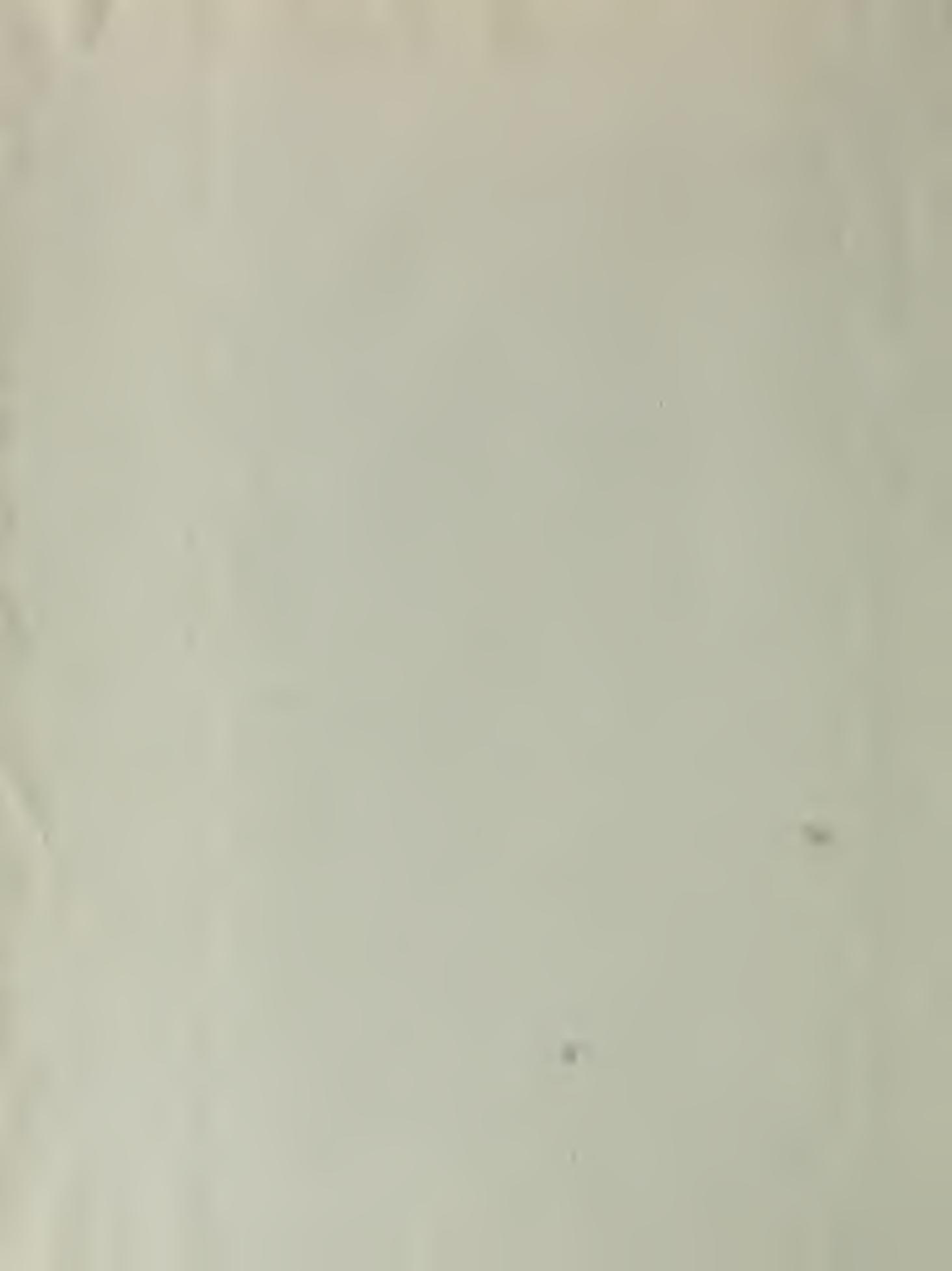
** Analysis by Edward S. Babcock and Sons, Foothill Lemon Co., a Corp., vs. C. E. Lillridge, et al., in the Superior Court of the State of California, in aid for the County of Riverside.











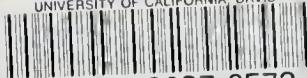
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